

Table C-82. Federal obligations for research and development and for R&D plant for selected agencies, by State: fiscal year 1998 (revised)

[Dollars in thousands]

State	Research, development, and R&D plant	Research and development	R&D plant
Total	72,349,653	70,512,996	1,836,657
Alabama	2,051,454	2,012,829	38,625
Alaska	110,705	106,939	3,766
Arizona	993,257	985,734	7,523
Arkansas	115,563	97,026	18,537
California	12,642,223	12,215,846	426,377
Colorado	1,399,429	1,334,209	65,220
Connecticut	694,899	692,341	2,558
Delaware	46,003	45,214	789
District of Columbia	2,242,273	2,229,086	13,187
Florida	2,818,726	2,752,371	66,355
Georgia	3,446,388	3,442,612	3,776
Hawaii	164,761	160,826	3,935
Idaho	225,090	213,625	11,465
Illinois	1,280,140	1,127,553	152,587
Indiana	380,819	377,735	3,084
Iowa	243,261	236,084	7,177
Kansas	129,253	128,697	556
Kentucky	188,955	188,955	0
Louisiana	253,961	223,555	30,406
Maine	105,474	103,901	1,573
Maryland	8,271,607	7,964,210	307,397
Massachusetts	3,122,958	3,112,271	10,687
Michigan	751,403	748,443	2,960
Minnesota	810,603	807,083	3,520
Mississippi	327,927	280,366	47,561
Missouri	934,769	930,735	4,034
Montana	82,679	80,670	2,009
Nebraska	85,832	84,982	850
Nevada	293,741	290,853	2,888
New Hampshire	272,101	269,132	2,969
New Jersey	1,491,664	1,459,570	32,094
New Mexico	2,005,510	1,891,565	113,945
New York	2,673,981	2,551,833	122,148
North Carolina	955,082	924,652	30,430
North Dakota	55,296	52,088	3,208
Ohio	5,653,437	5,562,227	91,210
Oklahoma	178,097	175,497	2,600
Oregon	317,875	314,710	3,165
Pennsylvania	1,904,200	1,886,258	17,942
Rhode Island	399,369	385,411	13,958
South Carolina	193,447	186,221	7,226
South Dakota	46,589	46,003	586
Tennessee	649,964	621,155	28,809
Texas	4,146,558	4,110,756	35,802
Utah	394,287	392,807	1,480
Vermont	57,702	57,596	106
Virginia	4,721,556	4,667,864	53,692
Washington	1,258,666	1,244,174	14,492
West Virginia	255,439	242,844	12,595
Wisconsin	333,314	332,203	1,111
Wyoming	34,215	33,549	666
Outlying areas	115,009	111,908	3,101
Puerto Rico	64,149	61,938	2,211
Other areas	50,860	49,970	890
Offices abroad	22,142	18,222	3,920

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D and R&D plant obligations in fiscal year 1998.

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

**Table C-83. Federal obligations for research and development for selected agencies,
by State and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State (in order of total Federal research & development obligations)	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other non- profit institu- tions	FFRDCs admin by nonprofit institu- tions	State and local govts
Total	70,512,996	16,544,621	31,764,775	1,174,386	13,189,193	3,879,236	2,934,878	602,808	423,099
California	12,215,846	1,595,270	5,937,882	13,220	1,886,772	2,017,569	519,452	120,883	124,798
Maryland	7,964,210	4,766,005	2,054,921	163,223	798,113	0	178,769	0	3,179
Ohio	5,562,227	698,173	4,388,253	0	344,724	0	125,380	0	5,697
Virginia	4,667,864	1,480,464	2,694,070	879	244,283	61,895	43,793	135,732	6,748
Texas	4,110,756	596,978	2,741,834	0	691,377	0	69,230	1,496	9,841
Georgia	3,442,612	235,596	2,920,561	0	270,814	0	10,287	0	5,354
Massachusetts	3,112,271	301,193	991,701	0	823,426	221,292	706,800	63,007	4,852
Florida	2,752,371	749,648	1,683,990	0	299,747	0	10,708	0	8,278
New York	2,551,833	191,988	709,033	0	1,121,737	213,181	221,286	0	94,608
District of Columbia	2,229,086	1,717,704	202,014	350	151,507	2,036	150,383	2,119	2,973
Alabama	2,012,829	752,619	878,065	0	225,263	130,201	24,312	0	2,369
New Mexico	1,891,565	395,908	170,514	614,018	85,267	608,320	15,147	0	2,391
Pennsylvania	1,886,258	132,927	702,304	219	853,437	16,884	173,970	0	6,517
New Jersey	1,459,570	392,554	784,488	0	218,031	37,387	17,106	6,082	3,922
Colorado	1,334,209	202,224	604,876	0	278,740	65,204	54,822	123,027	5,316
Washington	1,244,174	183,685	427,331	0	355,630	0	121,688	149,770	6,070
Illinois	1,127,553	71,946	82,221	0	504,232	398,996	61,529	0	8,629
Arizona	985,734	138,493	636,632	0	159,883	36,485	7,777	0	6,464
Missouri	930,735	48,544	560,924	0	294,459	0	22,202	0	4,606
North Carolina	924,652	235,873	121,168	0	499,001	0	63,610	0	5,000
Minnesota	807,083	38,437	472,522	0	196,262	0	93,791	0	6,071
Michigan	748,443	111,457	160,127	0	450,082	0	17,989	0	8,788
Connecticut	692,341	18,257	379,213	0	265,433	0	23,557	0	5,881
Tennessee	621,155	37,925	54,239	307,181	181,024	10,256	27,685	0	2,845
Utah	392,807	135,365	111,547	0	142,514	0	1,296	0	2,085
Rhode Island	385,411	222,106	78,082	0	60,182	0	22,978	0	2,063
Indiana	377,735	38,023	142,363	0	189,882	200	3,318	0	3,949
Wisconsin	332,203	38,021	16,017	0	265,640	0	8,233	0	4,292
Oregon	314,710	87,846	24,915	0	171,995	0	20,849	0	9,105
Nevada	290,853	48,514	211,316	0	25,268	0	4,107	0	1,648
Mississippi	280,366	132,896	70,301	0	67,535	0	7,886	0	1,748
New Hampshire	269,132	33,959	163,677	0	69,064	0	1,669	0	763
West Virginia	242,844	96,682	84,815	0	26,830	30,448	868	0	3,201
Iowa	236,084	32,701	24,757	0	150,856	20,824	4,093	0	2,853
Louisiana	223,555	84,315	20,104	0	111,713	0	4,117	0	3,306
Idaho	213,625	25,042	108,599	57,105	20,652	0	1,337	0	890
Kentucky	188,955	6,591	99,613	0	73,577	0	1,708	0	7,466
South Carolina	186,221	44,872	22,122	18,191	92,443	0	2,583	692	5,318
Oklahoma	175,497	51,038	54,017	0	60,570	0	7,988	0	1,884
Hawaii	160,826	54,776	30,246	0	52,256	0	21,777	0	1,771
Kansas	128,697	24,757	19,642	0	78,444	0	1,210	0	4,644
Alaska	106,939	44,010	17,637	0	29,598	0	3,707	0	11,987
Maine	103,901	10,953	44,317	0	15,190	0	31,050	0	2,391
Arkansas	97,026	45,895	2,199	0	44,974	0	2,488	0	1,470
Nebraska	84,982	28,873	2,104	0	46,328	0	6,572	0	1,105
Montana	80,670	33,101	9,897	0	32,949	0	3,149	0	1,574
Vermont	57,596	4,171	12,827	0	37,865	0	1,483	0	1,250
North Dakota	52,088	27,360	376	0	21,036	0	1,145	0	2,171
South Dakota	46,003	27,501	6,083	0	9,429	0	2,125	0	865
Delaware	45,214	3,722	7,877	0	29,971	0	3,042	0	602

See explanatory information, if any, and SOURCE at end of table.

**Table C-83. Federal obligations for research and development for selected agencies,
by State and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State (in order of total Federal research & development obligations)	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other non- profit institu- tions	FFRDCs admin by nonprofit institu- tions	State and local govts
Wyoming	33,549	11,991	1,108	0	16,758	0	2,827	0	865
Outlying areas	111,908	40,238	16,847	0	46,129	8,058	0	0	636
Puerto Rico	61,938	7,476	51	0	45,718	8,058	0	0	635
Other areas	49,970	32,762	16,796	0	411	0	0	0	1
Offices abroad	18,222	15,434	2,487	0	301	0	0	0	0

¹ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D obligations in fiscal year 1998.

KEY: FFRDCs = Federally funded research and development centers

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

Table C-83a. Percentage distribution of Federal obligations for research and development to each performer for selected agencies, by State: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Intra-mural ¹	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other non-profit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
California	17.3	9.6	18.7	1.1	14.3	52.0	17.7	20.1	29.5
Maryland	11.3	28.8	6.5	13.9	6.1	.0	6.1	.0	.8
Ohio	7.9	4.2	13.8	.0	2.6	.0	4.3	.0	1.3
Virginia	6.6	8.9	8.5	.1	1.9	1.6	1.5	22.5	1.6
Texas	5.8	3.6	8.6	.0	5.2	.0	2.4	.2	2.3
Georgia	4.9	1.4	9.2	.0	2.1	.0	.4	.0	1.3
Massachusetts	4.4	1.8	3.1	.0	6.2	5.7	24.1	10.5	1.1
Florida	3.9	4.5	5.3	.0	2.3	.0	.4	.0	2.0
New York	3.6	1.2	2.2	.0	8.5	5.5	7.5	.0	22.4
District of Columbia	3.2	10.4	.6	*	1.1	.1	5.1	.4	.7
Alabama	2.9	4.5	2.8	.0	1.7	3.4	.8	.0	.6
New Mexico	2.7	2.4	.5	52.3	.6	15.7	.5	.0	.6
Pennsylvania	2.7	.8	2.2	*	6.5	.4	5.9	.0	1.5
New Jersey	2.1	2.4	2.5	.0	1.7	1.0	.6	1.0	.9
Colorado	1.9	1.2	1.9	.0	2.1	1.7	1.9	20.4	1.3
Washington	1.8	1.1	1.3	.0	2.7	.0	4.1	24.8	1.4
Illinois	1.6	.4	.3	.0	3.8	10.3	2.1	.0	2.0
Arizona	1.4	.8	2.0	.0	1.2	.9	.3	.0	1.5
Missouri	1.3	.3	1.8	.0	2.2	.0	.8	.0	1.1
North Carolina	1.3	1.4	.4	.0	3.8	.0	2.2	.0	1.2
Minnesota	1.1	.2	1.5	.0	1.5	.0	3.2	.0	1.4
Michigan	1.1	.7	.5	.0	3.4	.0	.6	.0	2.1
Connecticut	1.0	.1	1.2	.0	2.0	.0	.8	.0	1.4
Tennessee .....	.9	.2	.2	26.2	1.4	.3	.9	.0	.7
Utah .....	.6	.8	.4	.0	1.1	.0	*	.0	.5
Rhode Island .....	.5	1.3	.2	.0	.5	.0	.8	.0	.5
Indiana .....	.5	.2	.4	.0	1.4	*	.1	.0	.9
Wisconsin .....	.5	.2	.1	.0	2.0	.0	.3	.0	1.0
Oregon .....	.4	.5	.1	.0	1.3	.0	.7	.0	2.2
Nevada .....	.4	.3	.7	.0	.2	.0	.1	.0	.4
Mississippi .....	.4	.8	.2	.0	.5	.0	.3	.0	.4
New Hampshire .....	.4	.2	.5	.0	.5	.0	.1	.0	.2
West Virginia .....	.3	.6	.3	.0	.2	.8	*	.0	.8
Iowa .....	.3	.2	.1	.0	1.1	.5	.1	.0	.7
Louisiana .....	.3	.5	.1	.0	.8	.0	.1	.0	.8
Idaho .....	.3	.2	.3	4.9	.2	.0	*	.0	.2
Kentucky .....	.3	*	.3	.0	.6	.0	.1	.0	1.8
South Carolina .....	.3	.3	.1	1.5	.7	.0	.1	.1	1.3
Oklahoma .....	.2	.3	.2	.0	.5	.0	.3	.0	.4
Hawaii .....	.2	.3	.1	.0	.4	.0	.7	.0	.4
Kansas .....	.2	.1	.1	.0	.6	.0	*	.0	1.1
Alaska .....	.2	.3	.1	.0	.2	.0	.1	.0	2.8
Maine .....	.1	.1	.1	.0	.1	.0	1.1	.0	.6
Arkansas .....	.1	.3	*	.0	.3	.0	.1	.0	.3
Nebraska .....	.1	.2	*	.0	.4	.0	.2	.0	.3
Montana .....	.1	.2	*	.0	.2	.0	.1	.0	.4
Vermont .....	.1	*	*	.0	.3	.0	.1	.0	.3
North Dakota .....	.1	.2	*	.0	.2	.0	*	.0	.5
South Dakota .....	.1	.2	*	.0	.1	.0	.1	.0	.2
Delaware .....	.1	*	*	.0	.2	.0	.1	.0	.1

See explanatory information, if any, and SOURCE at end of table.

Table C-83a. Percentage distribution of Federal obligations for research and development to each performer for selected agencies, by State: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Intra-mural ¹	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other non-profit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Wyoming	*	0.1	*	.0	0.1	.0	0.1	.0	0.2
Outlying areas	0.2	.2	0.1	.0	.3	0.2	.0	.0	.2
Puerto Rico .....	.1	*	*	.0	.3	.2	.0	.0	.2
Other areas .....	.1	.2	.1	.0	*	.0	.0	.0	*
Offices abroad	*	.1	*	.0	*	.0	.0	.0	.0

¹ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D obligations in fiscal year 1998.

KEY: * = Amount less than .05 percent
FFRDCs = Federally funded research and development centers

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

Table C-83b. Percentage distribution of Federal obligations for research and development to each State for selected agencies, by performer: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Intra-mural ¹	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other non-profit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total	100.0	23.5	45.0	1.7	18.7	5.5	4.2	0.9	0.6
California	100.0	13.1	48.6	.1	15.4	16.5	4.3	1.0	1.0
Maryland	100.0	59.8	25.8	2.0	10.0	.0	2.2	.0	*
Ohio	100.0	12.6	78.9	.0	6.2	.0	2.3	.0	.1
Virginia	100.0	31.7	57.7	*	5.2	1.3	.9	2.9	.1
Texas	100.0	14.5	66.7	.0	16.8	.0	1.7	*	.2
Georgia	100.0	6.8	84.8	.0	7.9	.0	.3	.0	.2
Massachusetts	100.0	9.7	31.9	.0	26.5	7.1	22.7	2.0	.2
Florida	100.0	27.2	61.2	.0	10.9	.0	.4	.0	.3
New York	100.0	7.5	27.8	.0	44.0	8.4	8.7	.0	3.7
District of Columbia	100.0	77.1	9.1	*	6.8	.1	6.7	.1	.1
Alabama	100.0	37.4	43.6	.0	11.2	6.5	1.2	.0	.1
New Mexico	100.0	20.9	9.0	32.5	4.5	32.2	.8	.0	.1
Pennsylvania	100.0	7.0	37.2	*	45.2	.9	9.2	.0	.3
New Jersey	100.0	26.9	53.7	.0	14.9	2.6	1.2	.4	.3
Colorado	100.0	15.2	45.3	.0	20.9	4.9	4.1	9.2	.4
Washington	100.0	14.8	34.3	.0	28.6	.0	9.8	12.0	.5
Illinois	100.0	6.4	7.3	.0	44.7	35.4	5.5	.0	.8
Arizona	100.0	14.0	64.6	.0	16.2	3.7	.8	.0	.7
Missouri	100.0	5.2	60.3	.0	31.6	.0	2.4	.0	.5
North Carolina	100.0	25.5	13.1	.0	54.0	.0	6.9	.0	.5
Minnesota	100.0	4.8	58.5	.0	24.3	.0	11.6	.0	.8
Michigan	100.0	14.9	21.4	.0	60.1	.0	2.4	.0	1.2
Connecticut	100.0	2.6	54.8	.0	38.3	.0	3.4	.0	.8
Tennessee	100.0	6.1	8.7	49.5	29.1	1.7	4.5	.0	.5
Utah	100.0	34.5	28.4	.0	36.3	.0	.3	.0	.5
Rhode Island	100.0	57.6	20.3	.0	15.6	.0	6.0	.0	.5
Indiana	100.0	10.1	37.7	.0	50.3	.1	.9	.0	1.0
Wisconsin	100.0	11.4	4.8	.0	80.0	.0	2.5	.0	1.3
Oregon	100.0	27.9	7.9	.0	54.7	.0	6.6	.0	2.9
Nevada	100.0	16.7	72.7	.0	8.7	.0	1.4	.0	.6
Mississippi	100.0	47.4	25.1	.0	24.1	.0	2.8	.0	.6
New Hampshire	100.0	12.6	60.8	.0	25.7	.0	.6	.0	.3
West Virginia	100.0	39.8	34.9	.0	11.0	12.5	.4	.0	1.3
Iowa	100.0	13.9	10.5	.0	63.9	8.8	1.7	.0	1.2
Louisiana	100.0	37.7	9.0	.0	50.0	.0	1.8	.0	1.5
Idaho	100.0	11.7	50.8	26.7	9.7	.0	.6	.0	.4
Kentucky	100.0	3.5	52.7	.0	38.9	.0	.9	.0	4.0
South Carolina	100.0	24.1	11.9	9.8	49.6	.0	1.4	.4	2.9
Oklahoma	100.0	29.1	30.8	.0	34.5	.0	4.6	.0	1.1
Hawaii	100.0	34.1	18.8	.0	32.5	.0	13.5	.0	1.1
Kansas	100.0	19.2	15.3	.0	61.0	.0	.9	.0	3.6
Alaska	100.0	41.2	16.5	.0	27.7	.0	3.5	.0	11.2
Maine	100.0	10.5	42.7	.0	14.6	.0	29.9	.0	2.3
Arkansas	100.0	47.3	2.3	.0	46.4	.0	2.6	.0	1.5
Nebraska	100.0	34.0	2.5	.0	54.5	.0	7.7	.0	1.3
Montana	100.0	41.0	12.3	.0	40.8	.0	3.9	.0	2.0
Vermont	100.0	7.2	22.3	.0	65.7	.0	2.6	.0	2.2
North Dakota	100.0	52.5	.7	.0	40.4	.0	2.2	.0	4.2
South Dakota	100.0	59.8	13.2	.0	20.5	.0	4.6	.0	1.9
Delaware	100.0	8.2	17.4	.0	66.3	.0	6.7	.0	1.3

See explanatory information, if any, and SOURCE at end of table.

Table C-83b. Percentage distribution of Federal obligations for research and development to each State for selected agencies, by performer: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Intra-mural ¹	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other non-profit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Wyoming	100.0	35.7	3.3	.0	50.0	.0	8.4	.0	2.6
Outlying areas	100.0	36.0	15.1	.0	41.2	7.2	.0	.0	.6
Puerto Rico	100.0	12.1	.1	.0	73.8	13.0	.0	.0	1.0
Other areas	100.0	65.6	33.6	.0	.8	.0	.0	.0	*
Offices abroad	100.0	84.7	13.6	.0	1.7	.0	.0	.0	.0

¹ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D obligations in fiscal year 1998.

KEY: * = Amount less than .05 percent
FFRDCs = Federally funded research and development centers

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

**Table C-84. Federal obligations for research and development, by State and selected agency:
fiscal year 1998 (revised)**

[Dollars in thousands]

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State (in order of total Federal research & development obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense ¹	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	EPA	NASA	National Science Foundation
Total	70,512,996	1,436,996	948,381	35,127,171	5,871,794	13,662,665	530,904	565,555	568,854	9,520,533	2,280,143
California	12,215,846	78,512	80,711	6,436,570	1,022,019	1,529,761	36,965	23,566	31,969	2,628,415	347,358
Maryland	7,964,210	138,061	348,425	2,715,895	58,127	3,233,290	12,348	24,572	8,056	1,364,748	60,688
Ohio	5,562,227	15,579	4,387	4,558,991	16,901	360,550	5,397	14,638	64,938	482,907	37,939
Virginia	4,667,864	9,580	13,022	3,677,347	86,785	167,903	43,493	30,455	21,704	557,914	59,661
Texas	4,110,756	63,664	12,545	1,100,366	22,885	523,738	23,049	12,444	14,976	2,265,388	71,701
Georgia	3,442,612	46,693	4,618	2,979,614	11,477	312,057	7,880	4,935	16,199	22,841	36,298
Massachusetts	3,112,271	22,399	44,145	1,439,986	100,568	1,124,925	6,062	38,016	19,434	143,063	173,673
Florida	2,752,371	35,715	46,249	1,971,409	57,739	156,940	28,666	6,019	8,824	374,334	66,476
New York	2,551,833	33,988	18,360	606,358	553,803	1,076,498	8,200	9,836	8,621	58,805	177,364
District of Columbia	2,229,086	168,355	16,087	1,094,165	282,183	179,298	2,351	145,327	70,834	196,235	74,251
Alabama	2,012,829	14,781	610	1,157,497	152,195	164,201	4,662	3,465	4,531	498,536	12,351
New Mexico	1,891,565	7,431	1,400	586,781	1,175,695	46,423	9,351	6,371	4,278	40,943	12,892
Pennsylvania	1,886,258	42,490	5,924	587,534	340,893	725,576	8,140	9,039	4,751	51,497	110,414
New Jersey	1,459,570	7,226	23,458	995,436	69,267	123,404	3,970	107,756	5,044	64,684	59,325
Colorado	1,334,209	26,699	86,190	559,410	138,686	187,331	45,101	11,836	10,201	156,560	112,195
Washington	1,244,174	36,264	61,629	421,089	161,184	381,681	11,445	5,148	5,272	109,947	50,515
Illinois	1,127,553	43,013	4,720	123,493	454,767	342,935	5,786	11,685	2,860	17,556	120,738
Arizona	985,734	21,817	2,059	726,497	4,017	84,299	11,984	1,753	2,512	56,587	74,209
Missouri	930,735	20,374	1,012	581,523	4,727	264,584	13,171	2,779	2,816	16,251	23,498
North Carolina	924,652	33,582	13,234	140,363	16,848	517,469	7,504	5,095	132,314	13,266	44,977
Minnesota	807,083	22,693	4,578	492,799	6,564	211,333	8,049	5,339	14,718	8,093	32,917
Michigan	748,443	21,110	24,263	230,914	15,880	306,905	10,130	7,487	18,849	30,304	82,601
Connecticut	692,341	6,151	5,728	283,579	54,480	236,460	1,467	14,327	891	63,436	25,822
Tennessee	621,155	8,712	1,598	64,824	319,786	168,671	6,193	4,382	1,467	29,971	15,551
Utah	392,807	13,527	2,293	240,273	8,000	78,397	7,802	852	1,208	16,306	24,149
Rhode Island	385,411	1,835	3,727	291,853	2,356	49,613	2,477	1,001	12,007	3,308	17,234
Indiana	377,735	14,097	2,180	176,279	17,778	106,863	3,996	3,612	1,105	7,708	44,117
Wisconsin	332,203	34,177	4,547	11,998	20,031	185,558	12,733	2,952	1,988	14,615	43,604
Oregon	314,710	35,129	16,004	16,678	34,653	135,026	12,117	1,834	24,064	9,159	30,046
Nevada	290,853	2,869	115	43,753	194,692	9,894	9,508	4,946	14,637	2,914	7,525
Mississippi	280,366	60,342	6,275	132,867	1,833	13,914	6,320	1,923	1,542	47,604	7,746
New Hampshire	269,132	4,673	7,824	184,392	670	35,610	1,971	2,191	889	18,349	12,563
West Virginia	242,844	20,579	647	18,068	101,577	39,299	7,089	2,453	187	18,286	34,659
Iowa	236,084	39,549	807	28,202	26,793	105,402	5,362	3,051	2,369	10,666	13,883
Louisiana	223,555	43,348	3,124	38,025	4,319	68,012	16,097	1,676	4,962	33,797	10,195
Idaho	213,625	17,793	1,320	19,502	157,221	2,869	9,068	2,228	0	912	2,712
Kentucky	188,955	7,845	588	9,613	98,213	53,102	3,689	3,418	1,840	1,533	9,114
South Carolina	186,221	14,864	10,699	52,269	28,331	50,813	4,501	1,812	2,312	3,296	17,324
Oklahoma	175,497	17,712	6,642	41,440	26,475	34,946	5,489	11,787	14,326	3,212	13,468
Hawaii	160,826	21,859	13,772	60,283	3,541	21,868	5,810	548	0	18,574	14,571
Kansas	128,697	13,736	1,028	31,276	3,890	48,338	6,466	1,373	2,842	5,555	14,193
Alaska	106,939	7,574	24,261	27,262	50	2,109	22,129	1,296	290	12,250	9,718
Maine	103,901	3,943	6,370	48,148	223	31,072	3,976	565	996	2,701	5,907
Arkansas	97,026	26,191	388	8,420	50	49,208	4,443	1,405	381	1,881	4,659
Nebraska	84,982	27,427	744	7,617	705	30,566	6,956	905	250	2,305	7,507
Montana	80,670	17,657	5,091	12,793	984	12,861	14,887	1,229	321	6,177	8,670
Vermont	57,596	5,418	776	13,640	584	29,291	1,378	497	743	699	4,570
North Dakota	52,088	26,003	659	2,556	5,167	2,872	6,893	1,720	1,100	1,854	3,264
South Dakota	46,003	7,007	677	1,799	50	2,578	13,526	781	275	15,950	3,360
Delaware	45,214	3,715	1,818	11,735	1,504	7,577	828	922	1,554	4,036	11,525

See explanatory information, if any, and SOURCE at end of table.

**Table C-84. Federal obligations for research and development, by State and selected agency:
fiscal year 1998 (revised)**

[Dollars in thousands]

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State (in order of total Federal research & development obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense ¹	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	EPA	NASA	National Science Foundation
Wyoming	33,549	6,833	24	2,951	3,787	1,938	7,454	1,778	450	850	7,484
Outlying areas	111,908	13,273	1,029	45,949	841	26,837	6,575	530	157	3,755	12,962
Puerto Rico	61,938	13,273	994	1,953	841	26,837	1,166	0	157	3,755	12,962
Other areas	49,970	0	35	43,996	0	0	5,409	530	0	0	0
Offices abroad	18,222	3,132	0	15,090	0	0	0	0	0	0	0

¹ Beginning with Vol. 40, Department of Defense (DoD) research is reported separately from DoD development. DoD states that more than 90 percent of its development reported for "universities and colleges" is performed at off-campus, university-affiliated laboratories that are not involved in teaching.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D obligations in fiscal year 1998.

KEY: EPA = Environmental Protection Agency
NASA = National Aeronautics & Space Administration

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

Table C-84a. Percentage distribution of Federal obligations for research and development of each selected agency, by State: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense ¹	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	EPA	NASA	National Science Foundation
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
California	17.3	5.5	8.5	18.3	17.4	11.2	7.0	4.2	5.6	27.6	15.2
Maryland	11.3	9.6	36.7	7.7	1.0	23.7	2.3	4.3	1.4	14.3	2.7
Ohio	7.9	1.1	.5	13.0	.3	2.6	1.0	2.6	11.4	5.1	1.7
Virginia	6.6	.7	1.4	10.5	1.5	1.2	8.2	5.4	3.8	5.9	2.6
Texas	5.8	4.4	1.3	3.1	.4	3.8	4.3	2.2	2.6	23.8	3.1
Georgia	4.9	3.2	.5	8.5	.2	2.3	1.5	.9	2.8	.2	1.6
Massachusetts	4.4	1.6	4.7	4.1	1.7	8.2	1.1	6.7	3.4	1.5	7.6
Florida	3.9	2.5	4.9	5.6	1.0	1.1	5.4	1.1	1.6	3.9	2.9
New York	3.6	2.4	1.9	1.7	9.4	7.9	1.5	1.7	1.5	.6	7.8
District of Columbia	3.2	11.7	1.7	3.1	4.8	1.3	.4	25.7	12.5	2.1	3.3
Alabama	2.9	1.0	.1	3.3	2.6	1.2	.9	.6	.8	5.2	.5
New Mexico	2.7	.5	.1	1.7	20.0	.3	1.8	1.1	.8	.4	.6
Pennsylvania	2.7	3.0	.6	1.7	5.8	5.3	1.5	1.6	.8	.5	4.8
New Jersey	2.1	.5	2.5	2.8	1.2	.9	.7	19.1	.9	.7	2.6
Colorado	1.9	1.9	9.1	1.6	2.4	1.4	8.5	2.1	1.8	1.6	4.9
Washington	1.8	2.5	6.5	1.2	2.7	2.8	2.2	.9	.9	1.2	2.2
Illinois	1.6	3.0	.5	.4	7.7	2.5	1.1	2.1	.5	.2	5.3
Arizona	1.4	1.5	.2	2.1	.1	.6	2.3	.3	.4	.6	3.3
Missouri	1.3	1.4	.1	1.7	.1	1.9	2.5	.5	.5	.2	1.0
North Carolina	1.3	2.3	1.4	.4	.3	3.8	1.4	.9	23.3	.1	2.0
Minnesota	1.1	1.6	.5	1.4	.1	1.5	1.5	.9	2.6	.1	1.4
Michigan	1.1	1.5	2.6	.7	.3	2.2	1.9	1.3	3.3	.3	3.6
Connecticut	1.0	.4	.6	.8	.9	1.7	.3	2.5	.2	.7	1.1
Tennessee .....	.9	.6	.2	.2	5.4	1.2	1.2	.8	.3	.3	.7
Utah .....	.6	.9	.2	.7	.1	.6	1.5	.2	.2	.2	1.1
Rhode Island .....	.5	.1	.4	.8	*	.4	.5	.2	2.1	*	.8
Indiana .....	.5	1.0	.2	.5	.3	.8	.8	.6	.2	.1	1.9
Wisconsin .....	.5	2.4	.5	*	.3	1.4	2.4	.5	.3	.2	1.9
Oregon .....	.4	2.4	1.7	*	.6	1.0	2.3	.3	4.2	.1	1.3
Nevada .....	.4	.2	*	.1	3.3	.1	1.8	.9	2.6	*	.3
Mississippi .....	.4	4.2	.7	.4	*	.1	1.2	.3	.3	.5	.3
New Hampshire .....	.4	.3	.8	.5	*	.3	.4	.4	.2	.2	.6
West Virginia .....	.3	1.4	.1	.1	1.7	.3	1.3	.4	*	.2	1.5
Iowa .....	.3	2.8	.1	.1	.5	.8	1.0	.5	.4	.1	.6
Louisiana .....	.3	3.0	.3	.1	.1	.5	3.0	.3	.9	.4	.4
Idaho .....	.3	1.2	.1	.1	2.7	*	1.7	.4	.0	*	.1
Kentucky .....	.3	.5	.1	*	1.7	.4	.7	.6	.3	*	.4
South Carolina .....	.3	1.0	1.1	.1	.5	.4	.8	.3	.4	*	.8
Oklahoma .....	.2	1.2	.7	.1	.5	.3	1.0	2.1	2.5	*	.6
Hawaii .....	.2	1.5	1.5	.2	.1	.2	1.1	.1	.0	.2	.6
Kansas .....	.2	1.0	.1	.1	.1	.4	1.2	.2	.5	.1	.6
Alaska .....	.2	.5	2.6	.1	*	*	4.2	.2	.1	.1	.4
Maine .....	.1	.3	.7	.1	*	.2	.7	.1	.2	*	.3
Arkansas .....	.1	1.8	*	*	*	.4	.8	.2	.1	*	.2
Nebraska .....	.1	1.9	.1	*	*	.2	1.3	.2	*	*	.3
Montana .....	.1	1.2	.5	*	*	.1	2.8	.2	.1	.1	.4
Vermont .....	.1	.4	.1	*	*	.2	.3	.1	.1	*	.2
North Dakota .....	.1	1.8	.1	*	.1	*	1.3	.3	.2	*	.1
South Dakota .....	.1	.5	.1	*	*	*	2.5	.1	*	.2	.1
Delaware .....	.1	.3	.2	*	*	.1	.2	.2	.3	*	.5

See explanatory information, if any, and SOURCE at end of table.

Table C-84a. Percentage distribution of Federal obligations for research and development of each selected agency, by State: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense ¹	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	EPA	NASA	National Science Foundation
Wyoming	*	0.5	*	*	0.1	*	1.4	0.3	0.1	*	0.3
Outlying areas	0.2	.9	0.1	0.1	*	0.2	1.2	.1	*	*	.6
Puerto Rico .....	.1	.9	.1	*	*	.2	.2	.0	*	*	.6
Other areas .....	.1	.0	*	.1	.0	.0	1.0	.1	.0	.0	.0
Offices abroad	*	.2	.0	*	.0	.0	.0	.0	.0	.0	.0

¹ Beginning with Vol. 40, Department of Defense (DoD) research is reported separately from DoD development. DoD states that more than 90 percent of its development reported for "universities and colleges" is performed at off-campus, university-affiliated laboratories that are not involved in teaching.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D obligations in fiscal year 1998.

KEY: * = Amount less than .05 percent
EPA = Environmental Protection Agency
NASA = National Aeronautics & Space Administration

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

Table C-84b. Percentage distribution of Federal obligations for research and development of each State, by selected agency: fiscal year 1998 (revised)

Page 1 of 2

State (in order of total Federal research & development obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense ¹	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	EPA	NASA	National Science Foundation
Total	100.0	2.0	1.3	49.8	8.3	19.4	0.8	0.8	0.8	13.5	3.2
California	100.0	.6	.7	52.7	8.4	12.5	.3	.2	.3	21.5	2.8
Maryland	100.0	1.7	4.4	34.1	.7	40.6	.2	.3	.1	17.1	.8
Ohio	100.0	.3	.1	82.0	.3	6.5	.1	.3	1.2	8.7	.7
Virginia	100.0	.2	.3	78.8	1.9	3.6	.9	.7	.5	12.0	1.3
Texas	100.0	1.5	.3	26.8	.6	12.7	.6	.3	.4	55.1	1.7
Georgia	100.0	1.4	.1	86.6	.3	9.1	.2	.1	.5	.7	1.1
Massachusetts	100.0	.7	1.4	46.3	3.2	36.1	.2	1.2	.6	4.6	5.6
Florida	100.0	1.3	1.7	71.6	2.1	5.7	1.0	.2	.3	13.6	2.4
New York	100.0	1.3	.7	23.8	21.7	42.2	.3	.4	.3	2.3	7.0
District of Columbia	100.0	7.6	.7	49.1	12.7	8.0	.1	6.5	3.2	8.8	3.3
Alabama	100.0	.7	*	57.5	7.6	8.2	.2	.2	.2	24.8	.6
New Mexico	100.0	.4	.1	31.0	62.2	2.5	.5	.3	.2	2.2	.7
Pennsylvania	100.0	2.3	.3	31.1	18.1	38.5	.4	.5	.3	2.7	5.9
New Jersey	100.0	.5	1.6	68.2	4.7	8.5	.3	7.4	.3	4.4	4.1
Colorado	100.0	2.0	6.5	41.9	10.4	14.0	3.4	.9	.8	11.7	8.4
Washington	100.0	2.9	5.0	33.8	13.0	30.7	.9	.4	.4	8.8	4.1
Illinois	100.0	3.8	.4	11.0	40.3	30.4	.5	1.0	.3	1.6	10.7
Arizona	100.0	2.2	.2	73.7	.4	8.6	1.2	.2	.3	5.7	7.5
Missouri	100.0	2.2	.1	62.5	.5	28.4	1.4	.3	.3	1.7	2.5
North Carolina	100.0	3.6	1.4	15.2	1.8	56.0	.8	.6	14.3	1.4	4.9
Minnesota	100.0	2.8	.6	61.1	.8	26.2	1.0	.7	1.8	1.0	4.1
Michigan	100.0	2.8	3.2	30.9	2.1	41.0	1.4	1.0	2.5	4.0	11.0
Connecticut	100.0	.9	.8	41.0	7.9	34.2	.2	2.1	.1	9.2	3.7
Tennessee	100.0	1.4	.3	10.4	51.5	27.2	1.0	.7	.2	4.8	2.5
Utah	100.0	3.4	.6	61.2	2.0	20.0	2.0	.2	.3	4.2	6.1
Rhode Island	100.0	.5	1.0	75.7	.6	12.9	.6	.3	3.1	.9	4.5
Indiana	100.0	3.7	.6	46.7	4.7	28.3	1.1	1.0	.3	2.0	11.7
Wisconsin	100.0	10.3	1.4	3.6	6.0	55.9	3.8	.9	.6	4.4	13.1
Oregon	100.0	11.2	5.1	5.3	11.0	42.9	3.9	.6	7.6	2.9	9.5
Nevada	100.0	1.0	*	15.0	66.9	3.4	3.3	1.7	5.0	1.0	2.6
Mississippi	100.0	21.5	2.2	47.4	.7	5.0	2.3	.7	.5	17.0	2.8
New Hampshire	100.0	1.7	2.9	68.5	.2	13.2	.7	.8	.3	6.8	4.7
West Virginia	100.0	8.5	.3	7.4	41.8	16.2	2.9	1.0	.1	7.5	14.3
Iowa	100.0	16.8	.3	11.9	11.3	44.6	2.3	1.3	1.0	4.5	5.9
Louisiana	100.0	19.4	1.4	17.0	1.9	30.4	7.2	.7	2.2	15.1	4.6
Idaho	100.0	8.3	.6	9.1	73.6	1.3	4.2	1.0	.0	.4	1.3
Kentucky	100.0	4.2	.3	5.1	52.0	28.1	2.0	1.8	1.0	.8	4.8
South Carolina	100.0	8.0	5.7	28.1	15.2	27.3	2.4	1.0	1.2	1.8	9.3
Oklahoma	100.0	10.1	3.8	23.6	15.1	19.9	3.1	6.7	8.2	1.8	7.7
Hawaii	100.0	13.6	8.6	37.5	2.2	13.6	3.6	.3	.0	11.5	9.1
Kansas	100.0	10.7	.8	24.3	3.0	37.6	5.0	1.1	2.2	4.3	11.0
Alaska	100.0	7.1	22.7	25.5	*	2.0	20.7	1.2	.3	11.5	9.1
Maine	100.0	3.8	6.1	46.3	.2	29.9	3.8	.5	1.0	2.6	5.7
Arkansas	100.0	27.0	.4	8.7	.1	50.7	4.6	1.4	.4	1.9	4.8
Nebraska	100.0	32.3	.9	9.0	.8	36.0	8.2	1.1	.3	2.7	8.8
Montana	100.0	21.9	6.3	15.9	1.2	15.9	18.5	1.5	.4	7.7	10.7
Vermont	100.0	9.4	1.3	23.7	1.0	50.9	2.4	.9	1.3	1.2	7.9
North Dakota	100.0	49.9	1.3	4.9	9.9	5.5	13.2	3.3	2.1	3.6	6.3
South Dakota	100.0	15.2	1.5	3.9	.1	5.6	29.4	1.7	.6	34.7	7.3
Delaware	100.0	8.2	4.0	26.0	3.3	16.8	1.8	2.0	3.4	8.9	25.5

See explanatory information, if any, and SOURCE at end of table.

Table C-84b. Percentage distribution of Federal obligations for research and development of each State, by selected agency: fiscal year 1998 (revised)

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State (in order of total Federal research & development obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense ¹	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	EPA	NASA	National Science Foundation
Wyoming	100.0	20.4	0.1	8.8	11.3	5.8	22.2	5.3	1.3	2.5	22.3
Outlying areas	100.0	11.9	.9	41.1	.8	24.0	5.9	.5	.1	3.4	11.6
Puerto Rico	100.0	21.4	1.6	3.2	1.4	43.3	1.9	.0	.3	6.1	20.9
Other areas	100.0	.0	.1	88.0	.0	.0	10.8	1.1	.0	.0	.0
Offices abroad	100.0	17.2	.0	82.8	.0	.0	.0	.0	.0	.0	.0

¹ Beginning with Vol. 40, Department of Defense (DoD) research is reported separately from DoD development. DoD states that more than 90 percent of its development reported for "universities and colleges" is performed at off-campus, university-affiliated laboratories that are not involved in teaching.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D obligations in fiscal year 1998.

KEY: * = Amount less than .05 percent
EPA = Environmental Protection Agency
NASA = National Aeronautics & Space Administration

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

Page 1 of 14

State and agency	Total	Intra- mural ¹	Extramural						State and local govts
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	
Alabama, total	2,012,829	752,619	878,065	0	225,263	130,201	24,312	0	2,369
Department of Agriculture	14,781	4,961	0	0	9,795	0	0	0	25
Department of Commerce	610	5	213	0	392	0	0	0	0
Department of Defense, research ²	82,355	33,791	32,494	0	14,354	0	1,716	0	0
Department of Defense, total development ³	1,075,142	400,252	672,003	0	2,427	0	460	0	0
Department of Energy	152,195	49	16,198	0	4,410	130,201	1,337	0	0
Department of Health & Human Svcs	164,201	404	2,861	0	147,132	0	13,784	0	20
Department of the Interior	4,662	4,304	35	0	255	0	0	0	68
Department of Transportation	3,465	159	355	0	759	0	0	0	2,192
Environmental Protection Agency	4,531	0	230	0	960	0	3,341	0	0
National Aeronautics and Space Admin	498,536	308,694	153,176	0	33,697	0	2,905	0	64
National Science Foundation	12,351	0	500	0	11,082	0	769	0	0
Alaska, total	106,939	44,010	17,637	0	29,598	0	3,707	0	11,987
Department of Agriculture	7,574	5,159	0	0	2,415	0	0	0	0
Department of Commerce	24,261	19,743	0	0	4,472	0	0	0	46
Department of Defense, research ²	932	632	187	0	113	0	0	0	0
Department of Defense, total development ³	26,330	1,096	14,570	0	664	0	0	0	10,000
Department of Energy	50	0	0	0	50	0	0	0	0
Department of Health & Human Svcs	2,109	285	119	0	1,424	0	0	0	281
Department of the Interior	22,129	16,756	2,230	0	2,748	0	31	0	364
Department of Transportation	1,296	0	0	0	0	0	0	0	1,296
Environmental Protection Agency	290	0	70	0	220	0	0	0	0
National Aeronautics and Space Admin	12,250	339	85	0	9,326	0	2,500	0	0
National Science Foundation	9,718	0	376	0	8,166	0	1,176	0	0
Arizona, total	985,734	138,493	636,632	0	159,883	36,485	7,777	0	6,464
Department of Agriculture	21,817	15,904	0	0	5,872	0	41	0	0
Department of Commerce	2,059	114	901	0	1,044	0	0	0	0
Department of Defense, research ²	45,374	9,278	19,939	0	16,148	0	9	0	0
Department of Defense, total development ³	681,123	92,575	580,800	0	5,148	0	0	0	2,600
Department of Energy	4,017	0	0	0	4,017	0	0	0	0
Department of Health & Human Svcs	84,299	4,830	3,533	0	67,961	0	6,149	0	1,826
Department of the Interior	11,984	10,780	47	0	1,015	0	7	0	135
Department of Transportation	1,753	0	25	0	25	0	0	0	1,703
Environmental Protection Agency	2,512	0	212	0	2,300	0	0	0	0
National Aeronautics and Space Admin	56,587	5,012	29,150	0	20,867	0	1,358	0	200
National Science Foundation	74,209	0	2,025	0	35,486	36,485	213	0	0
Arkansas, total	97,026	45,895	2,199	0	44,974	0	2,488	0	1,470
Department of Agriculture	26,191	13,730	9	0	12,452	0	0	0	0
Department of Commerce	388	58	0	0	0	0	330	0	0
Department of Defense, research ²	3,953	0	196	0	3,757	0	0	0	0
Department of Defense, total development ³	4,467	3,857	550	0	60	0	0	0	0
Department of Energy	50	0	0	0	50	0	0	0	0
Department of Health & Human Svcs	49,208	23,983	679	0	22,363	0	2,158	0	25
Department of the Interior	4,443	4,267	4	0	132	0	0	0	40
Department of Transportation	1,405	0	0	0	0	0	0	0	1,405
Environmental Protection Agency	381	0	0	0	381	0	0	0	0
National Aeronautics and Space Admin	1,881	0	685	0	1,196	0	0	0	0
National Science Foundation	4,659	0	76	0	4,583	0	0	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						State and local govts
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	
California, total	12,215,846	1,595,270	5,937,882	13,220	1,886,772	2,017,569	519,452	120,883	124,798
Department of Agriculture	78,512	57,938	0	0	20,113	0	461	0	0
Department of Commerce	80,711	18,401	53,469	0	7,610	0	534	0	697
Department of Defense, research ²	656,996	115,869	301,420	0	186,720	27,319	19,826	5,842	0
Department of Defense, total development ³	5,779,574	1,052,471	4,443,438	1,674	33,458	42,485	11,318	97,297	97,433
Department of Energy	1,022,019	7,432	73,968	11,546	109,613	805,229	14,231	0	0
Department of Health & Human Svcs	1,529,761	5,225	121,515	0	1,009,445	22,030	355,107	14,689	1,750
Department of the Interior	36,965	25,964	1,047	0	9,455	0	22	0	477
Department of Transportation	23,566	951	5,743	0	4,676	0	1,461	0	10,735
Environmental Protection Agency	31,969	0	1,086	0	23,237	0	821	0	6,825
National Aeronautics and Space Admin	2,628,415	310,808	924,573	0	168,470	1,120,293	94,448	2,942	6,881
National Science Foundation	347,358	211	11,623	0	313,975	213	21,223	113	0
Colorado, total	1,334,209	202,224	604,876	0	278,740	65,204	54,822	123,027	5,316
Department of Agriculture	26,699	20,378	0	0	6,143	0	178	0	0
Department of Commerce	86,190	76,599	1,917	0	7,674	0	0	0	0
Department of Defense, research ²	58,227	4,930	36,660	0	14,295	16	2,296	30	0
Department of Defense, total development ³	501,183	46,242	449,151	0	2,178	1,875	1,737	0	0
Department of Energy	138,686	2,910	1,500	0	8,618	0	2,621	122,997	40
Department of Health & Human Svcs	187,331	745	7,545	0	140,823	0	35,005	0	3,213
Department of the Interior	45,101	41,871	42	0	2,648	0	188	0	352
Department of Transportation	11,836	3	10,394	0	101	0	0	0	1,338
Environmental Protection Agency	10,201	0	70	0	4,126	0	6,005	0	0
National Aeronautics and Space Admin	156,560	8,130	93,036	0	49,087	381	5,757	0	169
National Science Foundation	112,195	416	4,561	0	43,047	62,932	1,035	0	204
Connecticut, total	692,341	18,257	379,213	0	265,433	0	23,557	0	5,881
Department of Agriculture	6,151	2,591	0	0	2,679	0	0	0	881
Department of Commerce	5,728	235	3,145	0	2,348	0	0	0	0
Department of Defense, research ²	39,490	1,711	27,108	0	8,400	0	2,271	0	0
Department of Defense, total development ³	244,089	3,400	232,876	0	290	0	7,523	0	0
Department of Energy	54,480	0	44,129	0	10,351	0	0	0	0
Department of Health & Human Svcs	236,460	24	6,995	0	215,093	0	11,407	0	2,941
Department of the Interior	1,467	1,296	55	0	116	0	0	0	0
Department of Transportation	14,327	9,000	3,704	0	0	0	0	0	1,623
Environmental Protection Agency	891	0	210	0	245	0	0	0	436
National Aeronautics and Space Admin	63,436	0	58,961	0	2,441	0	2,034	0	0
National Science Foundation	25,822	0	2,030	0	23,470	0	322	0	0
Delaware, total	45,214	3,722	7,877	0	29,971	0	3,042	0	602
Department of Agriculture	3,715	1,366	0	0	2,349	0	0	0	0
Department of Commerce	1,818	634	214	0	970	0	0	0	0
Department of Defense, research ²	9,670	628	3,414	0	5,540	0	88	0	0
Department of Defense, total development ³	2,065	386	1,601	0	78	0	0	0	0
Department of Energy	1,504	0	181	0	1,263	0	60	0	0
Department of Health & Human Svcs	7,577	5	841	0	6,148	0	533	0	50
Department of the Interior	828	703	0	0	95	0	0	0	30
Department of Transportation	922	0	400	0	0	0	0	0	522
Environmental Protection Agency	1,554	0	0	0	1,554	0	0	0	0
National Aeronautics and Space Admin	4,036	0	839	0	2,125	0	1,072	0	0
National Science Foundation	11,525	0	387	0	9,849	0	1,289	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						State and local govts
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	
District of Columbia, total	2,229,086	1,717,704	202,014	350	151,507	2,036	150,383	2,119	2,973
Department of Agriculture	168,355	157,585	9,278	0	758	0	589	0	145
Department of Commerce	16,087	14,066	522	0	796	0	703	0	0
Department of Defense, research ²	243,464	208,289	16,683	0	14,798	0	3,694	0	0
Department of Defense, total development ³	850,701	685,541	117,253	350	42,222	2,036	1,250	2,049	0
Department of Energy	282,183	268,485	2,422	0	1,750	0	9,526	0	0
Department of Health & Human Svcs	179,298	54,131	17,076	0	71,810	0	36,081	0	200
Department of the Interior	2,351	2,030	134	0	32	0	155	0	0
Department of Transportation	145,327	101,069	31,529	0	4,179	0	8,057	70	423
Environmental Protection Agency	70,834	51,000	2,082	0	590	0	14,987	0	2,175
National Aeronautics and Space Admin	196,235	169,136	3,749	0	7,177	0	16,143	0	30
National Science Foundation	74,251	6,372	1,286	0	7,395	0	59,198	0	0
Florida, total	2,752,371	749,648	1,683,990	0	299,747	0	10,708	0	8,278
Department of Agriculture	35,715	23,313	153	0	12,219	0	0	0	30
Department of Commerce	46,249	35,271	1,924	0	8,629	0	349	0	76
Department of Defense, research ²	137,227	65,939	37,831	0	32,940	0	517	0	0
Department of Defense, total development ³	1,834,182	380,814	1,451,687	0	1,498	0	10	0	173
Department of Energy	57,739	0	45,336	0	12,403	0	0	0	0
Department of Health & Human Svcs	156,940	49	6,819	0	143,894	0	5,595	0	583
Department of the Interior	28,666	25,295	336	0	2,869	0	0	0	166
Department of Transportation	6,019	0	929	0	30	0	0	0	5,060
Environmental Protection Agency	8,824	7,650	0	0	776	0	40	0	358
National Aeronautics and Space Admin	374,334	211,317	137,226	0	22,273	0	1,686	0	1,832
National Science Foundation	66,476	0	1,749	0	62,216	0	2,511	0	0
Georgia, total	3,442,612	235,596	2,920,561	0	270,814	0	10,287	0	5,354
Department of Agriculture	46,693	34,407	0	0	12,212	0	44	0	30
Department of Commerce	4,618	942	2,812	0	852	0	0	0	12
Department of Defense, research ²	43,026	7,719	10,982	0	23,571	0	754	0	0
Department of Defense, total development ³	2,936,588	19,899	2,894,988	0	18,928	0	2,773	0	0
Department of Energy	11,477	0	396	0	10,318	0	763	0	0
Department of Health & Human Svcs	312,057	150,719	3,958	0	153,214	0	4,042	0	124
Department of the Interior	7,880	7,236	84	0	492	0	0	0	68
Department of Transportation	4,935	188	0	0	742	0	0	0	4,005
Environmental Protection Agency	16,199	10,200	251	0	5,584	0	164	0	0
National Aeronautics and Space Admin	22,841	4,286	6,121	0	10,687	0	1,747	0	0
National Science Foundation	36,298	0	969	0	34,214	0	0	0	1,115
Hawaii, total	160,826	54,776	30,246	0	52,256	0	21,777	0	1,771
Department of Agriculture	21,859	11,159	0	0	5,110	0	5,590	0	0
Department of Commerce	13,772	9,263	355	0	3,407	0	110	0	637
Department of Defense, research ²	14,844	5,433	7,238	0	2,173	0	0	0	0
Department of Defense, total development ³	45,439	23,556	21,381	0	502	0	0	0	0
Department of Energy	3,541	0	0	0	3,421	0	120	0	0
Department of Health & Human Svcs	21,868	59	779	0	17,163	0	3,307	0	560
Department of the Interior	5,810	5,106	52	0	523	0	129	0	0
Department of Transportation	548	0	0	0	0	0	0	0	548
National Aeronautics and Space Admin	18,574	200	41	0	6,115	0	12,192	0	26
National Science Foundation	14,571	0	400	0	13,842	0	329	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

Page 4 of 14

State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
Idaho, total	213,625	25,042	108,599	57,105	20,652	0	1,337	0	890
Department of Agriculture	17,793	13,648	0	0	4,145	0	0	0	0
Department of Commerce	1,320	1,320	0	0	0	0	0	0	0
Department of Defense, research ²	5,742	296	408	2,189	2,849	0	0	0	0
Department of Defense, total development ³	13,760	660	12,722	254	124	0	0	0	0
Department of Energy	157,221	1,400	95,263	53,167	7,391	0	0	0	0
Department of Health & Human Svcs	2,869	9	101	0	1,422	0	1,337	0	0
Department of the Interior	9,068	7,370	5	0	1,603	0	0	0	90
Department of Transportation	2,228	0	33	1,395	0	0	0	0	800
National Aeronautics and Space Admin	912	339	67	100	406	0	0	0	0
National Science Foundation	2,712	0	0	0	2,712	0	0	0	0
Illinois, total	1,127,553	71,946	82,221	0	504,232	398,996	61,529	0	8,629
Department of Agriculture	43,013	31,528	0	0	11,075	0	410	0	0
Department of Commerce	4,720	67	3,590	0	683	0	380	0	0
Department of Defense, research ²	59,088	11,428	9,909	0	34,155	3,385	211	0	0
Department of Defense, total development ³	64,405	16,364	34,717	0	7,980	5,216	128	0	0
Department of Energy	454,767	4,595	13,427	0	44,628	390,068	2,049	0	0
Department of Health & Human Svcs	342,935	342	10,615	0	274,036	0	53,520	0	4,422
Department of the Interior	5,786	5,112	4	0	205	0	0	0	465
Department of Transportation	11,685	45	4,601	0	2,626	57	804	0	3,552
Environmental Protection Agency	2,860	0	282	0	2,578	0	0	0	0
National Aeronautics and Space Admin	17,556	2,465	3,365	0	10,187	270	1,079	0	190
National Science Foundation	120,738	0	1,711	0	116,079	0	2,948	0	0
Indiana, total	377,735	38,023	142,363	0	189,882	200	3,318	0	3,949
Department of Agriculture	14,097	4,936	0	0	9,161	0	0	0	0
Department of Commerce	2,180	84	1,049	0	572	0	475	0	0
Department of Defense, research ²	17,943	2,318	3,174	0	12,451	0	0	0	0
Department of Defense, total development ³	158,336	25,878	129,549	0	962	200	1,747	0	0
Department of Energy	17,778	0	150	0	17,628	0	0	0	0
Department of Health & Human Svcs	106,863	155	3,796	0	101,374	0	300	0	1,238
Department of the Interior	3,996	3,731	25	0	79	0	0	0	161
Department of Transportation	3,612	0	1,062	0	0	0	0	0	2,550
Environmental Protection Agency	1,105	0	56	0	584	0	465	0	0
National Aeronautics and Space Admin	7,708	921	3,175	0	3,281	0	331	0	0
National Science Foundation	44,117	0	327	0	43,790	0	0	0	0
Iowa, total	236,084	32,701	24,757	0	150,856	20,824	4,093	0	2,853
Department of Agriculture	39,549	27,187	0	0	12,360	0	2	0	0
Department of Commerce	807	0	357	0	450	0	0	0	0
Department of Defense, research ²	9,809	0	5,573	0	4,106	130	0	0	0
Department of Defense, total development ³	18,393	343	15,192	0	1,783	1,075	0	0	0
Department of Energy	26,793	0	0	0	4,999	19,619	2,175	0	0
Department of Health & Human Svcs	105,402	11	1,951	0	101,249	0	1,901	0	290
Department of the Interior	5,362	5,160	3	0	120	0	0	0	79
Department of Transportation	3,051	0	0	0	567	0	0	0	2,484
Environmental Protection Agency	2,369	0	0	0	2,369	0	0	0	0
National Aeronautics and Space Admin	10,666	0	1,681	0	8,985	0	0	0	0
National Science Foundation	13,883	0	0	0	13,868	0	15	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

Page 5 of 14

State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
Kansas, total	128,697	24,757	19,642	0	78,444	0	1,210	0	4,644
Department of Agriculture	13,736	7,849	0	0	5,878	0	9	0	0
Department of Commerce	1,028	154	0	0	425	0	449	0	0
Department of Defense, research ²	5,031	703	185	0	4,143	0	0	0	0
Department of Defense, total development ³	26,245	9,120	16,525	0	600	0	0	0	0
Department of Energy	3,890	0	10	0	3,880	0	0	0	0
Department of Health & Human Svcs	48,338	704	1,501	0	42,073	0	752	0	3,308
Department of the Interior	6,466	6,227	22	0	129	0	0	0	88
Department of Transportation	1,373	0	0	0	125	0	0	0	1,248
Environmental Protection Agency	2,842	0	0	0	2,842	0	0	0	0
National Aeronautics and Space Admin	5,555	0	1,370	0	4,185	0	0	0	0
National Science Foundation	14,193	0	29	0	14,164	0	0	0	0
Kentucky, total	188,955	6,591	99,613	0	73,577	0	1,708	0	7,466
Department of Agriculture	7,845	2	0	0	7,843	0	0	0	0
Department of Commerce	588	88	0	0	0	0	500	0	0
Department of Defense, research ²	4,714	1,413	871	0	2,430	0	0	0	0
Department of Defense, total development ³	4,899	1,949	2,259	0	691	0	0	0	0
Department of Energy	98,213	0	95,267	0	2,946	0	0	0	0
Department of Health & Human Svcs	53,102	9	956	0	47,496	0	955	0	3,686
Department of the Interior	3,689	3,077	15	0	235	0	0	0	362
Department of Transportation	3,418	0	0	0	0	0	0	0	3,418
Environmental Protection Agency	1,840	0	146	0	1,542	0	152	0	0
National Aeronautics and Space Admin	1,533	53	0	0	1,379	0	101	0	0
National Science Foundation	9,114	0	99	0	9,015	0	0	0	0
Louisiana, total	223,555	84,315	20,104	0	111,713	0	4,117	0	3,306
Department of Agriculture	43,348	31,429	0	0	11,879	0	40	0	0
Department of Commerce	3,124	1,383	53	0	1,688	0	0	0	0
Department of Defense, research ²	9,031	979	372	0	7,640	0	40	0	0
Department of Defense, total development ³	28,994	5,895	17,993	0	5,106	0	0	0	0
Department of Energy	4,319	0	0	0	4,319	0	0	0	0
Department of Health & Human Svcs	68,012	3,751	156	0	60,082	0	4,022	0	1
Department of the Interior	16,097	11,149	1,177	0	3,688	0	15	0	68
Department of Transportation	1,676	0	0	0	0	0	0	0	1,676
Environmental Protection Agency	4,962	0	0	0	4,962	0	0	0	0
National Aeronautics and Space Admin	33,797	29,729	253	0	3,815	0	0	0	0
National Science Foundation	10,195	0	100	0	8,534	0	0	0	1,561
Maine, total	103,901	10,953	44,317	0	15,190	0	31,050	0	2,391
Department of Agriculture	3,943	4	0	0	3,934	0	5	0	0
Department of Commerce	6,370	4,156	71	0	1,274	0	869	0	0
Department of Defense, research ²	9,287	121	6,008	0	2,557	0	601	0	0
Department of Defense, total development ³	38,861	3,215	35,646	0	0	0	0	0	0
Department of Energy	223	0	0	0	73	0	0	0	150
Department of Health & Human Svcs	31,072	5	2,049	0	1,285	0	26,346	0	1,387
Department of the Interior	3,976	3,412	9	0	522	0	0	0	33
Department of Transportation	565	0	0	0	0	0	0	0	565
Environmental Protection Agency	996	0	70	0	651	0	275	0	0
National Aeronautics and Space Admin	2,701	40	256	0	1,048	0	1,101	0	256
National Science Foundation	5,907	0	208	0	3,846	0	1,853	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
Maryland, total	7,964,210	4,766,005	2,054,921	163,223	798,113	0	178,769	0	3,179
Department of Agriculture	138,061	130,095	206	0	7,738	0	22	0	0
Department of Commerce	348,425	333,109	7,723	0	7,593	0	0	0	0
Department of Defense, research ²	373,819	250,610	73,959	0	43,842	0	5,408	0	0
Department of Defense, total development ³	2,342,076	1,254,504	919,729	0	162,139	0	5,623	0	81
Department of Energy	58,127	27,684	10,387	0	11,099	0	8,957	0	0
Department of Health & Human Svcs	3,233,290	2,370,500	266,992	163,223	380,322	0	51,323	0	930
Department of the Interior	12,348	11,811	80	0	432	0	0	0	25
Department of Transportation	24,572	3,249	13,145	0	6,519	0	0	0	1,659
Environmental Protection Agency	8,056	0	3,029	0	4,742	0	125	0	160
National Aeronautics and Space Admin	1,364,748	381,677	754,560	0	131,214	0	96,973	0	324
National Science Foundation	60,688	2,766	5,111	0	42,473	0	10,338	0	0
Massachusetts, total	3,112,271	301,193	991,701	0	823,426	221,292	706,800	63,007	4,852
Department of Agriculture	22,399	15,920	472	0	6,007	0	0	0	0
Department of Commerce	44,145	30,771	8,600	0	4,274	0	500	0	0
Department of Defense, research ²	280,359	50,322	93,833	0	86,755	31,831	17,243	375	0
Department of Defense, total development ³	1,159,627	140,570	732,937	0	17,976	189,205	16,307	62,632	0
Department of Energy	100,568	0	17,640	0	76,369	0	6,559	0	0
Department of Health & Human Svcs	1,124,925	1,452	89,333	0	435,429	0	596,604	0	2,107
Department of the Interior	6,062	4,255	342	0	1,209	0	0	0	256
Department of Transportation	38,016	31,922	3,964	0	113	0	55	0	1,962
Environmental Protection Agency	19,434	0	3,325	0	6,457	0	9,125	0	527
National Aeronautics and Space Admin	143,063	24,983	24,363	0	43,498	256	49,963	0	0
National Science Foundation	173,673	998	16,892	0	145,339	0	10,444	0	0
Michigan, total	748,443	111,457	160,127	0	450,082	0	17,989	0	8,788
Department of Agriculture	21,110	6,829	0	0	14,275	0	6	0	0
Department of Commerce	24,263	6,936	14,607	0	1,878	0	442	0	400
Department of Defense, research ²	67,289	24,033	18,973	0	23,457	0	826	0	0
Department of Defense, total development ³	163,625	63,338	84,081	0	13,111	0	3,095	0	0
Department of Energy	15,880	0	0	0	15,750	0	130	0	0
Department of Health & Human Svcs	306,905	736	13,063	0	284,935	0	5,235	0	2,936
Department of the Interior	10,130	9,585	9	0	457	0	0	0	79
Department of Transportation	7,487	0	2,330	0	149	0	1,635	0	3,373
Environmental Protection Agency	18,849	0	4,671	0	9,385	0	2,793	0	2,000
National Aeronautics and Space Admin	30,304	0	19,564	0	8,158	0	2,582	0	0
National Science Foundation	82,601	0	2,829	0	78,527	0	1,245	0	0
Minnesota, total	807,083	38,437	472,522	0	196,262	0	93,791	0	6,071
Department of Agriculture	22,693	15,028	0	0	7,658	0	7	0	0
Department of Commerce	4,578	180	2,926	0	1,472	0	0	0	0
Department of Defense, research ²	26,472	433	15,966	0	8,469	0	1,604	0	0
Department of Defense, total development ³	466,327	1,559	440,578	0	1,683	0	22,507	0	0
Department of Energy	6,564	0	0	0	6,561	0	3	0	0
Department of Health & Human Svcs	211,333	685	7,208	0	131,030	0	69,336	0	3,074
Department of the Interior	8,049	7,502	7	0	499	0	0	0	41
Department of Transportation	5,339	0	15	0	2,368	0	0	0	2,956
Environmental Protection Agency	14,718	12,750	438	0	1,530	0	0	0	0
National Aeronautics and Space Admin	8,093	300	4,583	0	3,170	0	40	0	0
National Science Foundation	32,917	0	801	0	31,822	0	294	0	0

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**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						State and local govts
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	
Mississippi, total	280,366	132,896	70,301	0	67,535	0	7,886	0	1,748
Department of Agriculture	60,342	42,681	0	0	16,868	0	793	0	0
Department of Commerce	6,275	5,727	78	0	470	0	0	0	0
Department of Defense, research ²	50,938	35,664	3,060	0	12,206	0	8	0	0
Department of Defense, total development ³	81,929	41,370	35,832	0	4,727	0	0	0	0
Department of Energy	1,833	0	376	0	1,457	0	0	0	0
Department of Health & Human Svcs	13,914	1	145	0	13,642	0	115	0	11
Department of the Interior	6,320	5,677	22	0	539	0	0	0	82
Department of Transportation	1,923	393	0	0	0	0	0	0	1,530
Environmental Protection Agency	1,542	0	0	0	1,542	0	0	0	0
National Aeronautics and Space Admin	47,604	1,383	30,788	0	8,338	0	6,970	0	125
National Science Foundation	7,746	0	0	0	7,746	0	0	0	0
Missouri, total	930,735	48,544	560,924	0	294,459	0	22,202	0	4,606
Department of Agriculture	20,374	9,681	0	0	10,693	0	0	0	0
Department of Commerce	1,012	343	0	0	85	0	415	0	169
Department of Defense, research ²	35,085	10,896	15,365	0	8,824	0	0	0	0
Department of Defense, total development ³	546,438	13,762	531,964	0	712	0	0	0	0
Department of Energy	4,727	21	340	0	4,356	0	10	0	0
Department of Health & Human Svcs	264,584	634	1,777	0	239,788	0	20,606	0	1,779
Department of the Interior	13,171	12,484	11	0	562	0	0	0	114
Department of Transportation	2,779	6	150	0	0	0	79	0	2,544
Environmental Protection Agency	2,816	0	250	0	2,506	0	60	0	0
National Aeronautics and Space Admin	16,251	717	10,667	0	4,864	0	3	0	0
National Science Foundation	23,498	0	400	0	22,069	0	1,029	0	0
Montana, total	80,670	33,101	9,897	0	32,949	0	3,149	0	1,574
Department of Agriculture	17,657	11,597	15	0	4,665	0	1,380	0	0
Department of Commerce	5,091	53	0	0	4,738	0	300	0	0
Department of Defense, research ²	5,517	15	576	0	4,926	0	0	0	0
Department of Defense, total development ³	7,276	2,606	4,670	0	0	0	0	0	0
Department of Energy	984	0	35	0	875	0	0	0	74
Department of Health & Human Svcs	12,861	5,011	714	0	5,764	0	1,222	0	150
Department of the Interior	14,887	13,794	31	0	841	0	0	0	221
Department of Transportation	1,229	0	0	0	100	0	0	0	1,129
Environmental Protection Agency	321	0	0	0	321	0	0	0	0
National Aeronautics and Space Admin	6,177	25	3,437	0	2,579	0	136	0	0
National Science Foundation	8,670	0	419	0	8,140	0	111	0	0
Nebraska, total	84,982	28,873	2,104	0	46,328	0	6,572	0	1,105
Department of Agriculture	27,427	19,297	0	0	8,130	0	0	0	0
Department of Commerce	744	106	0	0	38	0	600	0	0
Department of Defense, research ²	4,838	473	762	0	3,603	0	0	0	0
Department of Defense, total development ³	2,779	2,302	406	0	71	0	0	0	0
Department of Energy	705	0	0	0	705	0	0	0	0
Department of Health & Human Svcs	30,566	12	602	0	23,837	0	5,942	0	173
Department of the Interior	6,956	6,683	0	0	194	0	0	0	79
Department of Transportation	905	0	0	0	52	0	0	0	853
Environmental Protection Agency	250	0	0	0	220	0	30	0	0
National Aeronautics and Space Admin	2,305	0	234	0	2,071	0	0	0	0
National Science Foundation	7,507	0	100	0	7,407	0	0	0	0

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**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
Nevada, total	290,853	48,514	211,316	0	25,268	0	4,107	0	1,648
Department of Agriculture	2,869	436	0	0	2,398	0	35	0	0
Department of Commerce	115	0	2	0	113	0	0	0	0
Department of Defense, research ²	11,964	8,897	1,230	0	1,837	0	0	0	0
Department of Defense, total development ³	31,789	17,456	13,906	0	427	0	0	0	0
Department of Energy	194,692	10	191,035	0	2,865	0	782	0	0
Department of Health & Human Svcs	9,894	11	216	0	7,915	0	1,342	0	410
Department of the Interior	9,508	8,488	0	0	881	0	0	0	139
Department of Transportation	4,946	0	2,039	0	68	0	1,948	0	891
Environmental Protection Agency	14,637	12,750	1,155	0	584	0	0	0	148
National Aeronautics and Space Admin	2,914	466	1,733	0	655	0	0	0	60
National Science Foundation	7,525	0	0	0	7,525	0	0	0	0
New Hampshire, total	269,132	33,959	163,677	0	69,064	0	1,669	0	763
Department of Agriculture	4,673	2,562	0	0	2,109	0	2	0	0
Department of Commerce	7,824	5	1,705	0	6,114	0	0	0	0
Department of Defense, research ²	45,282	9,261	31,731	0	3,715	0	575	0	0
Department of Defense, total development ³	139,110	19,096	118,169	0	854	0	991	0	0
Department of Energy	670	0	0	0	670	0	0	0	0
Department of Health & Human Svcs	35,610	5	2,769	0	32,548	0	101	0	187
Department of the Interior	1,971	1,824	0	0	99	0	0	0	48
Department of Transportation	2,191	283	14	0	1,366	0	0	0	528
Environmental Protection Agency	889	0	0	0	889	0	0	0	0
National Aeronautics and Space Admin	18,349	350	8,477	0	9,522	0	0	0	0
National Science Foundation	12,563	573	812	0	11,178	0	0	0	0
New Jersey, total	1,459,570	392,554	784,488	0	218,031	37,387	17,106	6,082	3,922
Department of Agriculture	7,226	19	0	0	7,207	0	0	0	0
Department of Commerce	23,458	15,892	3,272	0	3,834	0	460	0	0
Department of Defense, research ²	114,869	37,155	54,270	0	23,260	115	17	52	0
Department of Defense, total development ³	880,567	298,359	573,431	0	2,672	0	0	6,030	75
Department of Energy	69,267	0	14,369	0	17,401	37,272	225	0	0
Department of Health & Human Svcs	123,404	198	14,454	0	95,006	0	12,755	0	991
Department of the Interior	3,970	3,514	136	0	221	0	0	0	99
Department of Transportation	107,756	35,365	69,185	0	449	0	0	0	2,757
Environmental Protection Agency	5,044	0	0	0	2,159	0	2,885	0	0
National Aeronautics and Space Admin	64,684	1,902	52,483	0	9,647	0	652	0	0
National Science Foundation	59,325	150	2,888	0	56,175	0	112	0	0
New Mexico, total	1,891,565	395,908	170,514	614,018	85,267	608,320	15,147	0	2,391
Department of Agriculture	7,431	3,650	0	0	3,771	0	10	0	0
Department of Commerce	1,400	43	1,113	0	0	0	244	0	0
Department of Defense, research ²	87,902	40,431	27,892	6,616	9,010	3,647	306	0	0
Department of Defense, total development ³	498,879	318,138	100,437	57,017	3,032	20,255	0	0	0
Department of Energy	1,175,695	9,031	26,171	548,800	9,958	574,435	7,300	0	0
Department of Health & Human Svcs	46,423	1,693	2,302	0	32,651	6,122	2,717	0	938
Department of the Interior	9,351	8,806	60	0	241	0	0	0	244
Department of Transportation	6,371	0	65	1,333	394	3,370	0	0	1,209
Environmental Protection Agency	4,278	0	993	0	100	0	3,185	0	0
National Aeronautics and Space Admin	40,943	13,630	10,074	252	16,179	390	418	0	0
National Science Foundation	12,892	486	1,407	0	9,931	101	967	0	0

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**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
New York, total	2,551,833	191,988	709,033	0	1,121,737	213,181	221,286	0	94,608
Department of Agriculture	33,988	16,169	102	0	16,721	0	996	0	0
Department of Commerce	18,360	972	10,403	0	5,808	27	550	0	600
Department of Defense, research ²	140,444	57,338	30,634	0	49,523	982	1,967	0	0
Department of Defense, total development ³	465,914	98,642	352,109	0	12,967	0	2,196	0	0
Department of Energy	553,803	6,351	275,480	0	61,593	207,628	2,751	0	0
Department of Health & Human Svcs	1,076,498	1,421	20,820	0	774,425	1,749	190,151	0	87,932
Department of the Interior	8,200	6,377	61	0	1,752	0	0	0	10
Department of Transportation	9,836	450	2,122	0	1,860	0	0	0	5,404
Environmental Protection Agency	8,621	0	11	0	5,749	0	2,861	0	0
National Aeronautics and Space Admin	58,805	4,268	14,263	0	28,083	1,953	10,238	0	0
National Science Foundation	177,364	0	3,028	0	163,256	842	9,576	0	662
North Carolina, total	924,652	235,873	121,168	0	499,001	0	63,610	0	5,000
Department of Agriculture	33,582	17,100	499	0	15,920	0	63	0	0
Department of Commerce	13,234	4,717	5,705	0	2,812	0	0	0	0
Department of Defense, research ²	67,277	18,423	10,568	0	36,551	0	1,735	0	0
Department of Defense, total development ³	73,087	23,178	43,247	0	6,382	0	280	0	0
Department of Energy	16,848	425	0	0	15,251	0	1,172	0	0
Department of Health & Human Svcs	517,469	85,021	20,564	0	359,319	0	50,821	0	1,744
Department of the Interior	7,504	5,424	1,273	0	568	0	55	0	184
Department of Transportation	5,095	0	0	0	2,023	0	0	0	3,072
Environmental Protection Agency	132,314	81,559	35,051	0	10,712	0	4,992	0	0
National Aeronautics and Space Admin	13,266	27	1,609	0	8,497	0	3,133	0	0
National Science Foundation	44,977	0	2,652	0	40,966	0	1,359	0	0
North Dakota, total	52,088	27,360	376	0	21,036	0	1,145	0	2,171
Department of Agriculture	26,003	20,240	0	0	5,763	0	0	0	0
Department of Commerce	659	99	0	0	560	0	0	0	0
Department of Defense, research ²	2,001	1	0	0	2,000	0	0	0	0
Department of Defense, total development ³	555	200	355	0	0	0	0	0	0
Department of Energy	5,167	0	0	0	5,167	0	0	0	0
Department of Health & Human Svcs	2,872	5	9	0	2,113	0	335	0	410
Department of the Interior	6,893	6,815	12	0	25	0	0	0	41
Department of Transportation	1,720	0	0	0	0	0	0	0	1,720
Environmental Protection Agency	1,100	0	0	0	1,100	0	0	0	0
National Aeronautics and Space Admin	1,854	0	0	0	1,794	0	60	0	0
National Science Foundation	3,264	0	0	0	2,514	0	750	0	0
Ohio, total	5,562,227	698,173	4,388,253	0	344,724	0	125,380	0	5,697
Department of Agriculture	15,579	7,067	0	0	8,156	0	348	0	8
Department of Commerce	4,387	58	3,074	0	955	0	300	0	0
Department of Defense, research ²	282,323	182,980	64,441	0	20,743	0	14,159	0	0
Department of Defense, total development ³	4,276,668	190,954	4,054,163	0	11,856	0	19,695	0	0
Department of Energy	16,901	0	7,927	0	8,595	0	379	0	0
Department of Health & Human Svcs	360,550	33,319	15,538	0	236,409	0	74,237	0	1,047
Department of the Interior	5,397	4,780	18	0	427	0	0	0	172
Department of Transportation	14,638	4,941	4,075	0	1,837	0	80	0	3,705
Environmental Protection Agency	64,938	48,450	10,272	0	3,791	0	1,950	0	475
National Aeronautics and Space Admin	482,907	225,624	227,732	0	15,208	0	14,053	0	290
National Science Foundation	37,939	0	1,013	0	36,747	0	179	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						State and local govts
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	
Oklahoma, total	175,497	51,038	54,017	0	60,570	0	7,988	0	1,884
Department of Agriculture	17,712	10,676	0	0	7,036	0	0	0	0
Department of Commerce	6,642	6,472	3	0	167	0	0	0	0
Department of Defense, research ²	19,313	8,015	6,667	0	4,631	0	0	0	0
Department of Defense, total development ³	22,127	9,953	11,939	0	235	0	0	0	0
Department of Energy	26,475	1,424	21,371	0	3,680	0	0	0	0
Department of Health & Human Svcs	34,946	11	919	0	26,018	0	7,884	0	114
Department of the Interior	5,489	5,217	4	0	159	0	0	0	109
Department of Transportation	11,787	1,620	8,307	0	199	0	0	0	1,661
Environmental Protection Agency	14,326	7,650	3,407	0	3,269	0	0	0	0
National Aeronautics and Space Admin	3,212	0	1,101	0	2,111	0	0	0	0
National Science Foundation	13,468	0	299	0	13,065	0	104	0	0
Oregon, total	314,710	87,846	24,915	0	171,995	0	20,849	0	9,105
Department of Agriculture	35,129	23,735	0	0	11,281	0	113	0	0
Department of Commerce	16,004	11,088	1,608	0	3,053	0	114	0	141
Department of Defense, research ²	13,898	0	2,489	0	11,409	0	0	0	0
Department of Defense, total development ³	2,780	534	1,394	0	462	0	390	0	0
Department of Energy	34,653	27,988	244	0	3,696	0	75	0	2,650
Department of Health & Human Svcs	135,026	21	9,479	0	101,013	0	19,853	0	4,660
Department of the Interior	12,117	11,533	10	0	401	0	0	0	173
Department of Transportation	1,834	0	10	0	543	0	0	0	1,281
Environmental Protection Agency	24,064	12,780	4,695	0	6,389	0	0	0	200
National Aeronautics and Space Admin	9,159	167	3,518	0	5,170	0	304	0	0
National Science Foundation	30,046	0	1,468	0	28,578	0	0	0	0
Pennsylvania, total	1,886,258	132,927	702,304	219	853,437	16,884	173,970	0	6,517
Department of Agriculture	42,490	30,989	113	0	11,210	0	178	0	0
Department of Commerce	5,924	109	3,550	0	653	0	1,612	0	0
Department of Defense, research ²	161,383	1,599	62,168	0	80,227	16,744	645	0	0
Department of Defense, total development ³	426,151	27,909	328,862	0	35,613	140	33,627	0	0
Department of Energy	340,893	44,828	257,371	0	25,959	0	12,735	0	0
Department of Health & Human Svcs	725,576	19,222	16,201	0	573,450	0	116,609	0	94
Department of the Interior	8,140	6,223	169	0	1,482	0	0	0	266
Department of Transportation	9,039	123	1,169	219	1,371	0	0	0	6,157
Environmental Protection Agency	4,751	0	136	0	4,615	0	0	0	0
National Aeronautics and Space Admin	51,497	1,925	31,809	0	16,856	0	907	0	0
National Science Foundation	110,414	0	756	0	102,001	0	7,657	0	0
Rhode Island, total	385,411	222,106	78,082	0	60,182	0	22,978	0	2,063
Department of Agriculture	1,835	2	0	0	1,757	0	76	0	0
Department of Commerce	3,727	1,054	493	0	2,180	0	0	0	0
Department of Defense, research ²	31,024	20,924	1,905	0	8,137	0	58	0	0
Department of Defense, total development ³	260,829	188,055	72,774	0	0	0	0	0	0
Department of Energy	2,356	0	0	0	2,351	0	5	0	0
Department of Health & Human Svcs	49,613	5	1,260	0	25,318	0	21,618	0	1,412
Department of the Interior	2,477	1,561	0	0	916	0	0	0	0
Department of Transportation	1,001	50	300	0	0	0	0	0	651
Environmental Protection Agency	12,007	10,199	1,250	0	524	0	34	0	0
National Aeronautics and Space Admin	3,308	256	0	0	2,841	0	211	0	0
National Science Foundation	17,234	0	100	0	16,158	0	976	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
South Carolina, total	186,221	44,872	22,122	18,191	92,443	0	2,583	692	5,318
Department of Agriculture	14,864	8,443	0	0	6,110	0	0	0	311
Department of Commerce	10,699	8,085	61	0	2,553	0	0	0	0
Department of Defense, research ²	15,092	937	4,851	0	9,270	0	34	0	0
Department of Defense, total development ³	37,177	22,368	12,130	0	1,033	0	954	692	0
Department of Energy	28,331	1	888	18,191	8,537	0	714	0	0
Department of Health & Human Svcs	50,813	16	3,570	0	44,686	0	275	0	2,266
Department of the Interior	4,501	3,672	191	0	162	0	0	0	476
Department of Transportation	1,812	0	0	0	51	0	0	0	1,761
Environmental Protection Agency	2,312	0	0	0	1,862	0	0	0	450
National Aeronautics and Space Admin	3,296	1,350	31	0	1,890	0	25	0	0
National Science Foundation	17,324	0	400	0	16,289	0	581	0	54
South Dakota, total	46,003	27,501	6,083	0	9,429	0	2,125	0	865
Department of Agriculture	7,007	4,018	0	0	2,989	0	0	0	0
Department of Commerce	677	102	0	0	0	0	575	0	0
Department of Defense, research ²	1,349	334	343	0	672	0	0	0	0
Department of Defense, total development ³	450	395	55	0	0	0	0	0	0
Department of Energy	50	0	0	0	50	0	0	0	0
Department of Health & Human Svcs	2,578	740	365	0	1,323	0	50	0	100
Department of the Interior	13,526	8,631	4,846	0	49	0	0	0	0
Department of Transportation	781	0	16	0	0	0	0	0	765
Environmental Protection Agency	275	0	0	0	275	0	0	0	0
National Aeronautics and Space Admin	15,950	13,281	40	0	1,129	0	1,500	0	0
National Science Foundation	3,360	0	418	0	2,942	0	0	0	0
Tennessee, total	621,155	37,925	54,239	307,181	181,024	10,256	27,685	0	2,845
Department of Agriculture	8,712	1	0	0	8,711	0	0	0	0
Department of Commerce	1,598	886	0	0	187	0	525	0	0
Department of Defense, research ²	17,381	1,972	4,843	3,065	7,499	0	2	0	0
Department of Defense, total development ³	47,443	20,052	14,034	12,577	780	0	0	0	0
Department of Energy	319,786	1,604	13,459	286,521	8,078	9,975	149	0	0
Department of Health & Human Svcs	168,671	1,812	3,984	0	135,644	281	26,950	0	0
Department of the Interior	6,193	5,154	12	0	994	0	0	0	33
Department of Transportation	4,382	282	196	1,390	0	0	0	0	2,514
Environmental Protection Agency	1,467	0	149	0	1,318	0	0	0	0
National Aeronautics and Space Admin	29,971	5,957	16,653	3,628	3,435	0	0	0	298
National Science Foundation	15,551	205	909	0	14,378	0	59	0	0
Texas, total	4,110,756	596,978	2,741,834	0	691,377	0	69,230	1,496	9,841
Department of Agriculture	63,664	47,422	0	0	16,221	0	10	0	11
Department of Commerce	12,545	2,590	4,185	0	5,770	0	0	0	0
Department of Defense, research ²	166,667	56,786	69,704	0	37,621	0	2,556	0	0
Department of Defense, total development ³	933,699	75,692	831,541	0	22,048	0	2,839	1,496	83
Department of Energy	22,885	0	1,266	0	21,270	0	349	0	0
Department of Health & Human Svcs	523,738	2,036	14,480	0	477,396	0	28,981	0	845
Department of the Interior	23,049	18,873	718	0	3,215	0	83	0	160
Department of Transportation	12,444	0	3,746	0	409	0	0	0	8,289
Environmental Protection Agency	14,976	0	1,601	0	11,175	0	2,000	0	200
National Aeronautics and Space Admin	2,265,388	393,579	1,812,232	0	27,930	0	31,394	0	253
National Science Foundation	71,701	0	2,361	0	68,322	0	1,018	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						State and local govts
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	
Utah, total	392,807	135,365	111,547	0	142,514	0	1,296	0	2,085
Department of Agriculture	13,527	8,153	0	0	5,373	0	1	0	0
Department of Commerce	2,293	84	1,502	0	232	0	0	0	475
Department of Defense, research ²	19,258	6,776	5,039	0	7,443	0	0	0	0
Department of Defense, total development ³	221,015	113,144	95,044	0	12,827	0	0	0	0
Department of Energy	8,000	0	865	0	6,800	0	0	0	335
Department of Health & Human Svcs	78,397	40	4,316	0	72,863	0	1,040	0	138
Department of the Interior	7,802	6,802	54	0	636	0	0	0	310
Department of Transportation	852	0	25	0	0	0	0	0	827
Environmental Protection Agency	1,208	0	70	0	1,138	0	0	0	0
National Aeronautics and Space Admin	16,306	366	3,919	0	12,021	0	0	0	0
National Science Foundation	24,149	0	713	0	23,181	0	255	0	0
Vermont, total	57,596	4,171	12,827	0	37,865	0	1,483	0	1,250
Department of Agriculture	5,418	1,679	0	0	3,739	0	0	0	0
Department of Commerce	776	126	0	0	40	0	610	0	0
Department of Defense, research ²	2,315	743	237	0	1,335	0	0	0	0
Department of Defense, total development ³	11,325	372	10,896	0	57	0	0	0	0
Department of Energy	584	0	141	0	370	0	73	0	0
Department of Health & Human Svcs	29,291	5	496	0	28,020	0	620	0	150
Department of the Interior	1,378	1,246	8	0	84	0	0	0	40
Department of Transportation	497	0	0	0	0	0	0	0	497
Environmental Protection Agency	743	0	0	0	0	0	180	0	563
National Aeronautics and Space Admin	699	0	556	0	143	0	0	0	0
National Science Foundation	4,570	0	493	0	4,077	0	0	0	0
Virginia, total	4,667,864	1,480,464	2,694,070	879	244,283	61,895	43,793	135,732	6,748
Department of Agriculture	9,580	801	0	0	7,917	0	862	0	0
Department of Commerce	13,022	4,439	6,876	0	1,482	0	225	0	0
Department of Defense, research ²	378,068	105,043	228,092	183	30,078	0	6,060	8,612	0
Department of Defense, total development ³	3,299,279	1,035,758	2,124,529	696	16,108	150	3,428	118,610	0
Department of Energy	86,785	12,254	3,664	0	8,398	61,745	724	0	0
Department of Health & Human Svcs	167,903	4,201	27,618	0	121,857	0	12,657	546	1,024
Department of the Interior	43,493	41,904	580	0	891	0	46	0	72
Department of Transportation	30,455	264	18,599	0	2,310	0	1,200	4,894	3,188
Environmental Protection Agency	21,704	0	15,942	0	1,902	0	3,860	0	0
National Aeronautics and Space Admin	557,914	271,050	248,826	0	21,057	0	11,545	2,972	2,464
National Science Foundation	59,661	4,750	19,344	0	32,283	0	3,186	98	0
Washington, total	1,244,174	183,685	427,331	0	355,630	0	121,688	149,770	6,070
Department of Agriculture	36,264	23,367	0	0	12,728	0	159	0	10
Department of Commerce	61,629	55,976	1,980	0	3,174	0	89	0	410
Department of Defense, research ²	44,902	3,558	16,807	0	20,721	0	1,263	2,553	0
Department of Defense, total development ³	376,187	82,953	286,172	0	3,443	0	419	3,200	0
Department of Energy	161,184	118	5,603	0	17,726	0	263	137,474	0
Department of Health & Human Svcs	381,681	7,787	15,581	0	234,239	0	115,911	5,276	2,887
Department of the Interior	11,445	9,151	19	0	2,001	0	0	0	274
Department of Transportation	5,148	0	1,577	0	15	0	0	1,267	2,289
Environmental Protection Agency	5,272	0	0	0	4,035	0	1,037	0	200
National Aeronautics and Space Admin	109,947	748	97,044	0	10,484	0	1,671	0	0
National Science Foundation	50,515	27	2,548	0	47,064	0	876	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
West Virginia, total	242,844	96,682	84,815	0	26,830	30,448	868	0	3,201
Department of Agriculture	20,579	16,276	0	0	3,888	0	38	0	377
Department of Commerce	647	97	0	0	550	0	0	0	0
Department of Defense, research ²	5,992	0	3,555	0	2,437	0	0	0	0
Department of Defense, total development ³	12,076	446	11,627	0	0	0	0	0	3
Department of Energy	101,577	46,610	49,956	0	4,165	0	721	0	125
Department of Health & Human Svcs	39,299	26,654	2,988	0	8,691	0	0	0	966
Department of the Interior	7,089	6,599	12	0	114	0	0	0	364
Department of Transportation	2,453	0	1,117	0	150	0	0	0	1,186
Environmental Protection Agency	187	0	0	0	0	0	7	0	180
National Aeronautics and Space Admin	18,286	0	11,603	0	6,581	0	102	0	0
National Science Foundation	34,659	0	3,957	0	254	30,448	0	0	0
Wisconsin, total	332,203	38,021	16,017	0	265,640	0	8,233	0	4,292
Department of Agriculture	34,177	24,555	11	0	9,594	0	17	0	0
Department of Commerce	4,547	517	1,875	0	2,155	0	0	0	0
Department of Defense, research ²	8,092	287	992	0	6,813	0	0	0	0
Department of Defense, total development ³	3,906	402	2,390	0	1,114	0	0	0	0
Department of Energy	20,031	0	0	0	19,511	0	520	0	0
Department of Health & Human Svcs	185,558	7	6,057	0	170,526	0	7,478	0	1,490
Department of the Interior	12,733	12,253	5	0	374	0	0	0	101
Department of Transportation	2,952	0	27	0	712	0	0	0	2,213
Environmental Protection Agency	1,988	0	125	0	1,300	0	75	0	488
National Aeronautics and Space Admin	14,615	0	3,967	0	10,530	0	118	0	0
National Science Foundation	43,604	0	568	0	43,011	0	25	0	0
Wyoming, total	33,549	11,991	1,108	0	16,758	0	2,827	0	865
Department of Agriculture	6,833	4,685	0	0	2,144	0	4	0	0
Department of Commerce	24	0	0	0	24	0	0	0	0
Department of Defense, research ²	2,697	96	0	0	2,601	0	0	0	0
Department of Defense, total development ³	254	101	0	0	153	0	0	0	0
Department of Energy	3,787	0	0	0	964	0	2,823	0	0
Department of Health & Human Svcs	1,938	4	292	0	1,617	0	0	0	25
Department of the Interior	7,454	7,105	0	0	271	0	0	0	78
Department of Transportation	1,778	0	125	0	891	0	0	0	762
Environmental Protection Agency	450	0	0	0	450	0	0	0	0
National Aeronautics and Space Admin	850	0	412	0	438	0	0	0	0
National Science Foundation	7,484	0	279	0	7,205	0	0	0	0
Outlying areas, total ⁴	111,908	40,238	16,847	0	46,129	8,058	0	0	636
Department of Agriculture	13,273	5,063	0	0	8,210	0	0	0	0
Department of Commerce	1,029	620	0	0	408	0	0	0	1
Department of Defense, research ²	2,453	500	0	0	1,953	0	0	0	0
Department of Defense, total development ³	43,496	26,700	16,796	0	0	0	0	0	0
Department of Energy	841	0	0	0	841	0	0	0	0
Department of Health & Human Svcs	26,837	682	36	0	25,484	0	0	0	635
Department of the Interior	6,575	6,243	15	0	317	0	0	0	0
Department of Transportation	530	430	0	0	100	0	0	0	0
Environmental Protection Agency	157	0	0	0	157	0	0	0	0
National Aeronautics and Space Admin	3,755	0	0	0	3,755	0	0	0	0
National Science Foundation	12,962	0	0	0	4,904	8,058	0	0	0

See explanatory information, if any, and SOURCE at end of table.

**Table C-85. Federal obligations for research and development, by State,
selected agency, and performer: fiscal year 1998 (revised)**

[Dollars in thousands]

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State and agency	Total	Intra- mural ¹	Extramural						
			Industrial firms	FFRDCs admin by indus- trial firms	Univer- sities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institu- tions	FFRDCs admin by non- profit institu- tions	State and local govts
Puerto Rico, total ⁴	61,938	7,476	51	0	45,718	8,058	0	0	635
Department of Agriculture	13,273	5,063	0	0	8,210	0	0	0	0
Department of Commerce	994	616	0	0	378	0	0	0	0
Department of Defense, research ²	1,953	0	0	0	1,953	0	0	0	0
Department of Energy	841	0	0	0	841	0	0	0	0
Department of Health & Human Svcs	26,837	682	36	0	25,484	0	0	0	635
Department of the Interior	1,166	1,115	15	0	36	0	0	0	0
Environmental Protection Agency	157	0	0	0	157	0	0	0	0
National Aeronautics and Space Admin	3,755	0	0	0	3,755	0	0	0	0
National Science Foundation	12,962	0	0	0	4,904	8,058	0	0	0
Other areas, total ⁴	49,970	32,762	16,796	0	411	0	0	0	1
Department of Commerce	35	4	0	0	30	0	0	0	1
Department of Defense, research ²	500	500	0	0	0	0	0	0	0
Department of Defense, total development ³	43,496	26,700	16,796	0	0	0	0	0	0
Department of the Interior	5,409	5,128	0	0	281	0	0	0	0
Department of Transportation	530	430	0	0	100	0	0	0	0
National Science Foundation	0	0	0	0	0	0	0	0	0
Offices abroad, total	18,222	15,434	2,487	0	301	0	0	0	0
Department of Agriculture	3,132	3,132	0	0	0	0	0	0	0
Department of Defense, research ²	1,998	1,937	0	0	61	0	0	0	0
Department of Defense, total development ³	13,092	10,365	2,487	0	240	0	0	0	0

¹ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

² Beginning with Vol. 40, Department of Defense (DoD) research is reported separately from DoD development. DoD states that more than 90 percent of its development reported for "universities and colleges" is performed at off-campus, university-affiliated laboratories that are not involved in teaching.

³ Beginning with Vol. 44, Department of Defense development obligations are reported in two categories: advanced technology and major systems. Geographic data for these categories are not reported; therefore, this table shows only total development.

⁴ Outlying areas, total represents the sum of Puerto Rico, total and Other areas, total.

NOTE: Only the following 10 agencies are required to report to this section of the survey: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Interior, and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 98 percent of total Federal R&D and R&D plant obligations in fiscal year 1998.

KEY: FFRDCs = Federally funded research and development centers

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000

**Table C-110a. Federal obligations for research and development for selected agencies,
by State: fiscal years 1990-1998 (revised)**

[Dollars in millions]

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State	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total	62,105.2	59,865.4	64,089.7	65,743.8	65,820.1	66,700.1	66,292.4	68,510.2	70,513.0
Alabama	1,805.4	1,863.2	2,151.7	2,149.4	1,819.2	1,931.3	2,178.8	2,213.7	2,012.8
Alaska	90.7	102.7	93.0	92.7	157.3	96.9	93.3	99.9	106.9
Arizona	591.7	516.8	638.2	535.3	800.2	902.3	706.7	732.1	985.7
Arkansas	85.7	85.9	68.8	79.2	88.9	97.7	148.2	95.3	97.0
California	16,249.3	14,488.3	15,999.1	14,883.7	11,250.6	12,697.7	12,658.1	13,730.9	12,215.8
Colorado	1,888.3	2,694.2	1,479.2	1,343.4	1,356.4	951.7	1,277.6	1,340.2	1,334.2
Connecticut	509.8	672.7	578.3	522.2	733.5	900.7	798.9	846.5	692.3
Delaware	28.3	41.8	43.1	56.2	50.4	57.7	64.9	49.0	45.2
District of Columbia	1,593.1	1,943.7	2,185.2	2,488.8	2,483.6	2,755.4	2,574.1	2,232.3	2,229.1
Florida	2,343.4	2,181.1	2,832.3	2,775.3	2,906.7	2,391.8	2,957.9	3,326.4	2,752.4
Georgia	364.1	466.5	2,512.6	3,035.3	5,546.4	4,366.0	4,137.8	3,919.9	3,442.6
Hawaii	100.0	112.6	150.7	113.0	140.3	139.3	147.6	150.7	160.8
Idaho	326.1	279.1	299.5	303.7	227.8	211.0	244.6	205.7	213.6
Illinois	957.2	959.4	921.9	963.8	1,088.6	1,107.4	1,094.3	1,140.2	1,127.6
Indiana	363.6	378.7	367.0	513.6	403.6	426.3	439.8	410.4	377.7
Iowa	186.7	209.8	194.7	215.8	223.8	212.1	213.4	228.2	236.1
Kansas	116.4	83.6	91.2	87.9	84.8	120.4	212.0	255.5	128.7
Kentucky	96.5	122.4	71.7	86.7	90.1	73.1	78.6	91.3	189.0
Louisiana	121.2	163.6	169.6	152.6	210.5	170.1	228.7	211.0	223.6
Maine	39.7	57.1	60.6	65.2	82.1	53.1	56.7	68.7	103.9
Maryland	5,332.1	5,570.7	5,779.7	7,238.5	6,659.5	7,343.7	6,730.7	7,328.8	7,964.2
Massachusetts	2,982.8	3,146.4	3,227.9	3,551.7	3,201.8	3,337.8	3,192.1	3,437.5	3,112.3
Michigan	810.8	772.6	876.3	878.0	771.0	683.2	707.9	735.1	748.4
Minnesota	529.8	455.7	456.4	445.5	475.1	570.2	679.5	609.4	807.1
Mississippi	471.7	230.6	255.7	259.8	255.9	209.7	250.6	289.8	280.4
Missouri	1,064.3	587.9	733.5	726.3	2,272.6	1,606.2	1,267.8	1,130.1	930.7
Montana	30.9	45.8	71.5	69.1	57.0	63.8	63.0	79.3	80.7
Nebraska	76.4	76.1	71.1	78.5	86.5	84.7	88.5	83.0	85.0
Nevada	484.7	496.0	465.8	406.2	347.7	368.9	253.2	295.0	290.9
New Hampshire	145.1	196.3	156.1	237.6	218.9	213.2	268.5	278.7	269.1
New Jersey	1,601.6	1,698.2	1,646.8	1,422.8	1,385.7	1,297.7	1,272.6	1,318.8	1,459.6
New Mexico	2,311.3	2,018.7	2,211.3	2,309.6	1,894.1	1,959.9	1,955.0	1,933.1	1,891.6
New York	2,960.8	3,086.3	3,058.7	2,538.0	2,678.7	2,585.9	2,504.9	2,471.0	2,551.8
North Carolina	618.6	673.8	700.7	719.1	734.3	831.6	821.5	900.3	924.7
North Dakota	53.1	43.7	54.2	50.3	49.6	47.4	46.2	53.0	52.1
Ohio	2,088.5	1,729.9	1,863.4	1,921.7	1,736.4	1,810.0	1,681.7	1,879.8	5,562.2
Oklahoma	162.6	131.5	126.1	117.9	142.1	158.7	138.3	160.4	175.5
Oregon	175.6	216.5	226.5	229.4	279.2	283.4	308.2	319.6	314.7
Pennsylvania	2,074.6	2,125.6	1,794.4	2,566.5	1,983.4	2,394.2	1,921.2	1,893.7	1,886.3
Rhode Island	391.1	433.8	386.3	495.6	433.8	514.6	583.2	403.8	385.4
South Carolina	230.9	250.4	172.1	173.2	198.5	173.2	186.7	166.6	186.2
South Dakota	15.7	22.5	23.9	26.9	26.5	26.5	35.0	42.0	46.0
Tennessee	825.0	732.2	666.0	674.4	671.3	582.5	558.6	566.2	621.2
Texas	3,496.8	2,321.4	2,873.0	2,546.2	3,654.3	4,068.9	3,493.5	3,640.2	4,110.8
Utah	437.7	429.1	314.0	298.8	324.9	368.8	351.7	319.9	392.8
Vermont	42.5	56.1	51.3	62.1	48.5	53.0	47.1	49.9	57.6
Virginia	2,733.5	2,909.0	3,231.3	3,402.6	3,726.9	3,392.2	4,576.3	4,849.8	4,667.9
Washington	1,567.0	1,241.1	900.5	878.1	963.8	1,131.6	1,152.9	1,226.2	1,244.2
West Virginia	116.6	177.9	166.4	206.2	212.9	287.9	254.4	193.1	242.8
Wisconsin	271.7	294.5	307.7	350.8	358.3	338.5	331.4	332.2	332.2

See explanatory information, if any, and SOURCE at end of table.

**Table C-110a. Federal obligations for research and development for selected agencies,
by State: fiscal years 1990-1998 (revised)**

[Dollars in millions]

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State	1990	1991	1992	1993	1994	1995	1996	1997	1998
Wyoming	57.4	29.8	41.4	48.2	36.8	35.4	37.5	28.4	33.5
Outlying areas	54.9	221.0	246.9	332.7	166.3	166.5	172.6	93.3	111.9
Puerto Rico	NA	NA	NA	NA	50.5	46.7	51.6	58.9	61.9
Other Areas	NA	NA	NA	NA	115.8	119.8	121.0	34.3	50.0
Offices abroad	31.7	21.0	24.4	17.8	23.1	48.0	48.5	54.6	18.2

NOTES: For each year, the data shown include the obligations of the 10 or 11 major R&D-supporting agencies which were requested to report to this section of the survey in that year, and represent 96 percent or more of the total Federal R&D obligations in that year.

Although the nongeographic historical tables incorporate corrections to previously reported data that have been submitted by the reporting agencies, corresponding corrections to the geographic distributions are rarely obtainable.

Because of rounding, detail may not add to totals.

KEY: NA = Not applicable (indicates that the data collected for this table were not recorded at that level in that particular fiscal year)

SOURCE: National Science Foundation/Division of Science Resources Studies, Survey of Federal Funds for Research and Development: Fiscal Years 1998, 1999, and 2000